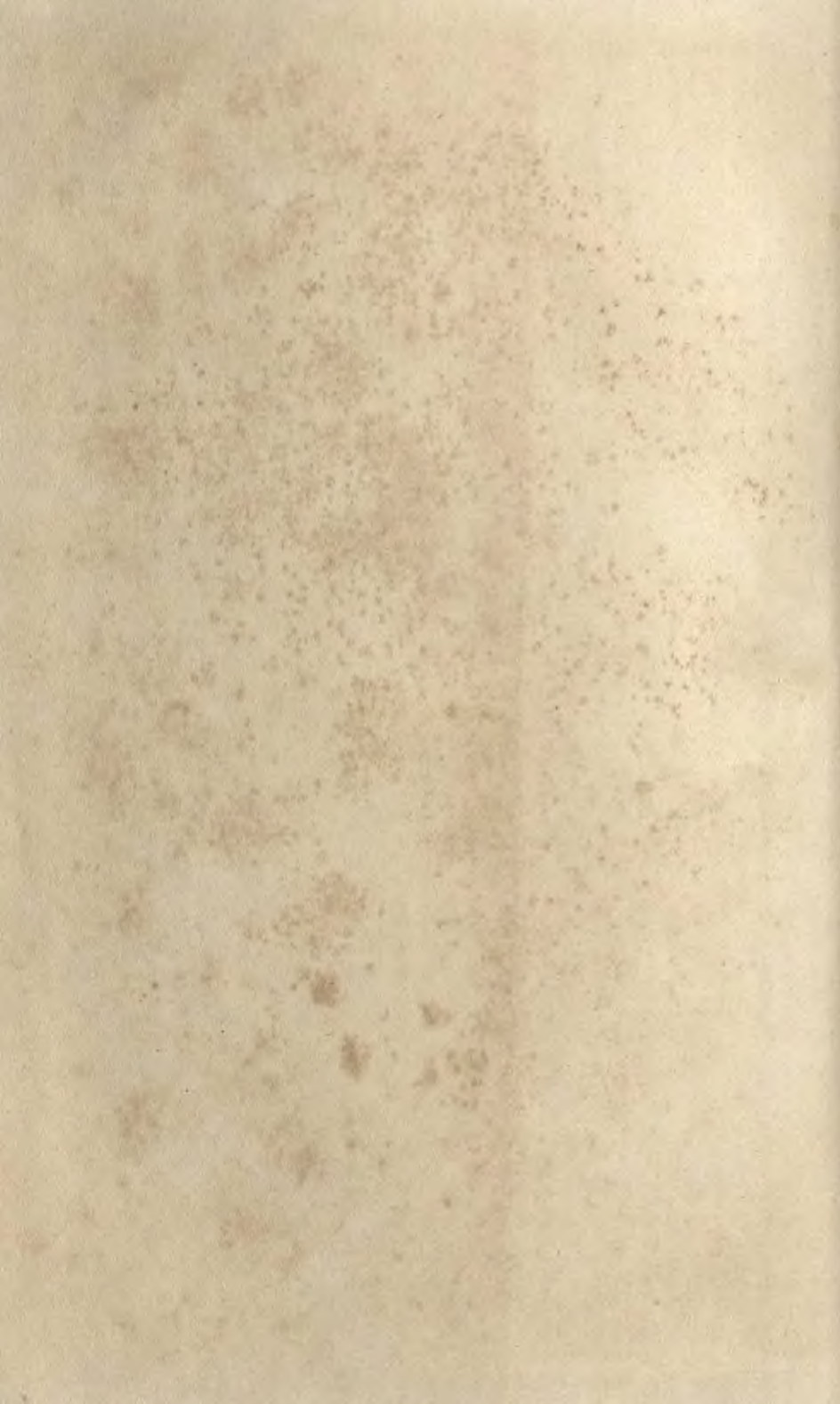
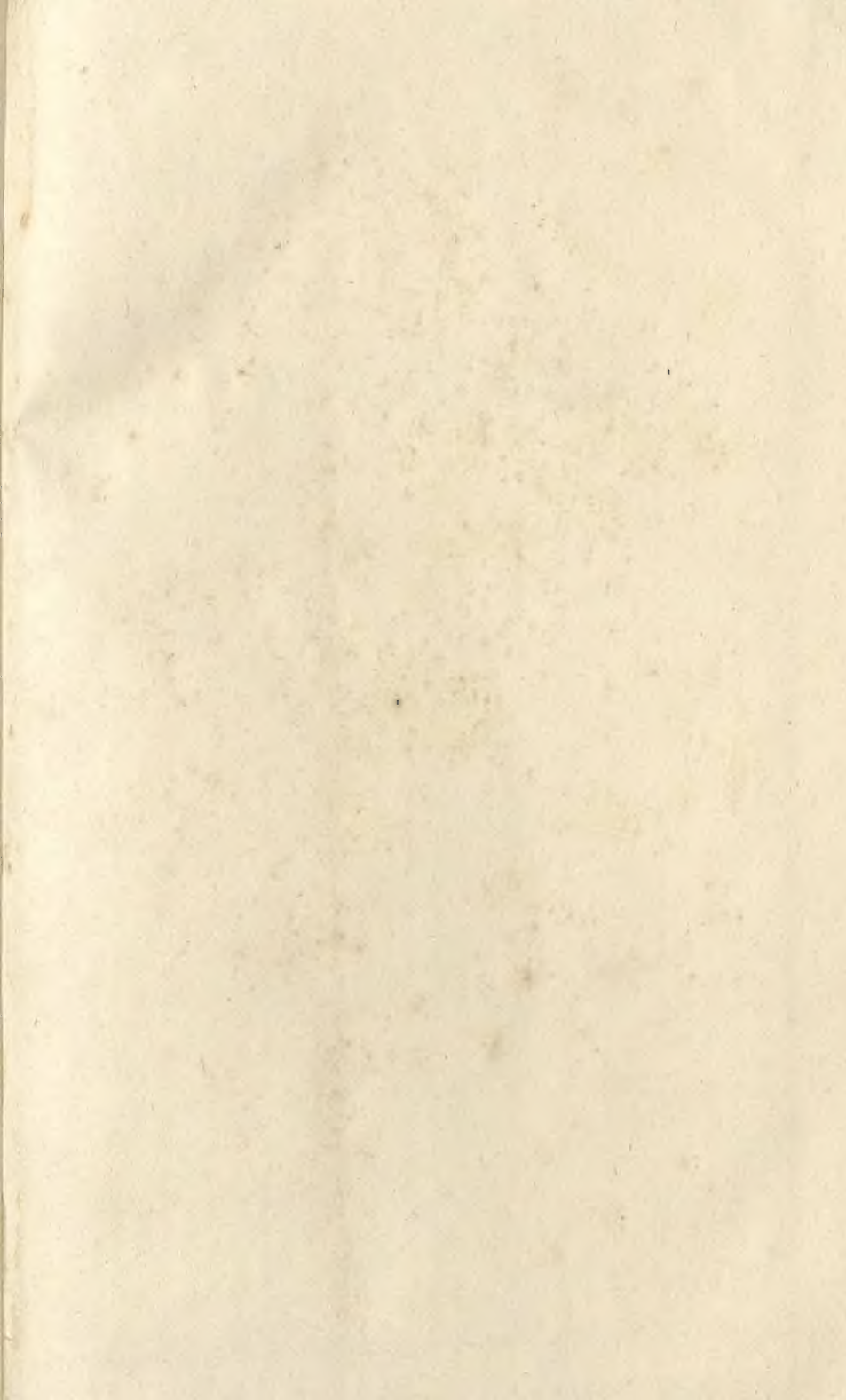


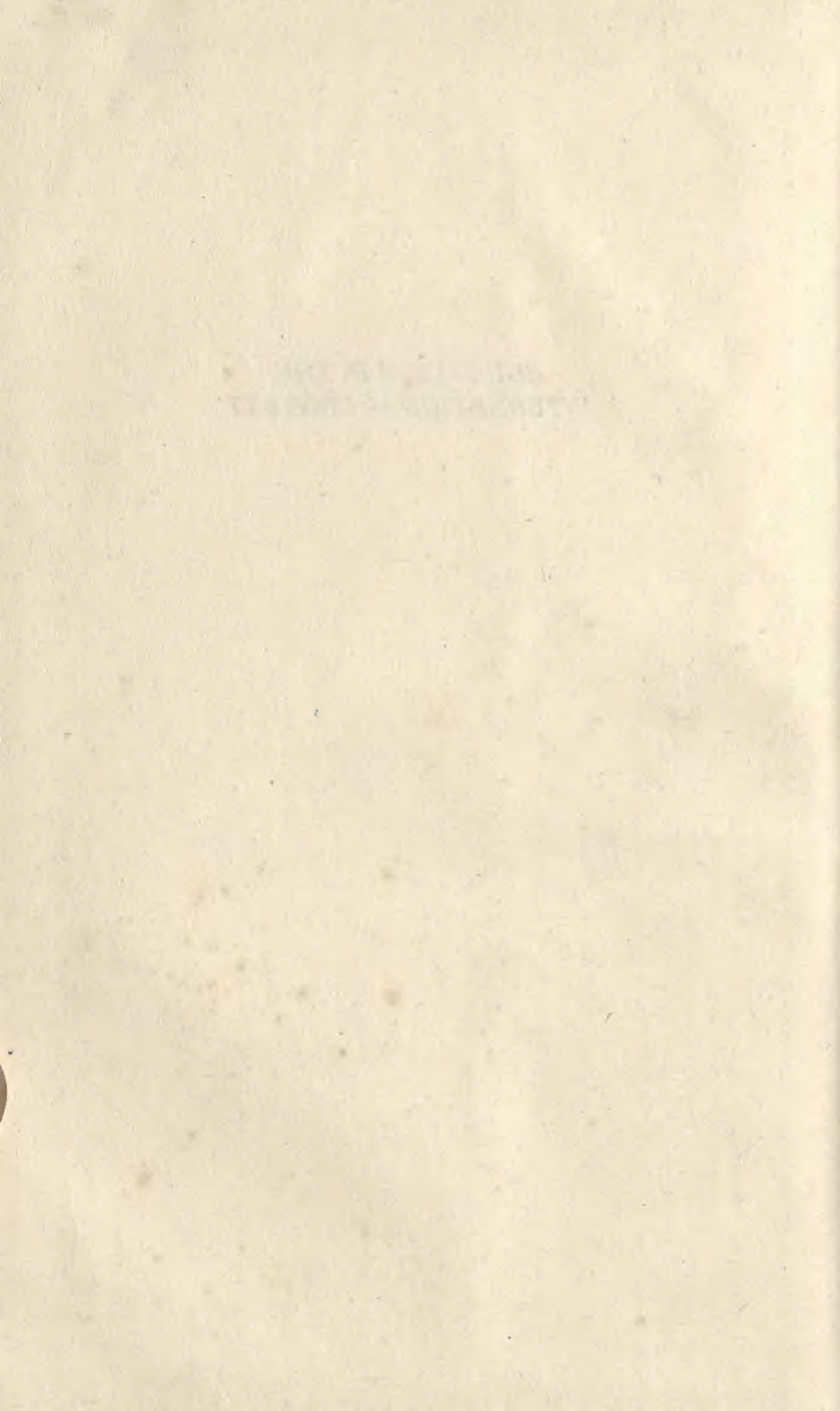
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***EDUCATION IN THE
INTERNATIONAL CONTEXT***



EDUCATION IN THE INTERNATIONAL CONTEXT

Gomathi Mani



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L-10, Green Park Extension, New Delhi-110016

G-2, Cunningham Apartments, Cunningham Road, Bangalore-560052

Mishradeep, Patliputra Path, Rajendra Nagar, Patna-800016

DATE & TIME OF RECEIPT

Date.. 6.3.92

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370.196

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Education in the International Context

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PRINTED IN INDIA

Published by S.K. Ghai, Managing Director, Sterling Publishers Pvt. Ltd.,
L-10, Green Park Extension, New Delhi-110016. Printed at Ram Printograph
(India) New Delhi-110020.

PREFACE

The complex pattern of international relations, knowledge, science technology and population explosions call for an intelligent understanding of the role of institutions such as the United Nations, and its specialised agencies, in a world torn by conflict, strife and war. Poverty and hunger have become a world phenomenon and a developing country like India has to combat adult illiteracy (64%) and the war against poverty. The formal education system is unable to cope with the demand for education with its limited infrastructure and as a result an alternative system such as adult non-formal, open and distance education have been launched to supplement the traditional system. In order to improve the quality of education simultaneously with the quantity, a number of innovative approaches have been introduced both in the curriculum and the modes of delivery.

Professor Dover Welson once wrote, "There is no reason why comparative education should not prove as interesting and fruitful a study as comparative politics. The time will come when people will realise that the structure of a nation's educational system is as characteristic and almost as important as the form of its constitution and when it does, we shall have our educational Montesquieus analysing educational institutions and our Bryces classifying them." Since then a great deal of material has been collected and published and a start has been made in such an analysis and classification. Realising the importance of the study of comparative international education it has been included in the syllabi of many Indian universities in its B.Ed. and M.Ed. programmes.

The major objective of this book is not only to cover the syllabi of these universities but also to contribute additional information over and above the requirements of the syllabi. To stimulate and provide intense and indepth information on international experiences, the educational experiences of different countries have been included. This book is

primarily intended for students—both from regular and distance education stream, teachers and educationists. This book will be useful at the graduate and post-graduate levels.

This humble effort will go a long way in helping the academic and student community in the pivotal area of education in the international context. The author would very much appreciate any comments from the users of this book.

Gomathi Mani

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1

EDUCATION FOR INTERNATIONAL UNDERSTANDING

1.01 Introduction

International relations involve not just impersonal forces but acts of people. It is through values and institutions, through thoughts and acts of leaders, that the basic facts of the material environment affect international politics. "The most stubborn facts," as Jean Gottman observes, "are those of the spirit, not of the physical world." Since war is the last resort of diplomacy, the three factors, such as the area of diplomatic relations, the disposition of power within that area, and the practicable method of warfare, tend to influence the decisions of statesmen. The three factors such as the issues at stake, the domestic policy, and the statesman's understanding of the interstate relations represent the ideological aspect of international relations. The general lines of international relations are by no means easy to understand, since the desire to expand the sphere of influence and the aim of spreading ideologies, are actively present on both sides.

1.02 Ethical Approach to International Understanding

The term "morality" in common usage, has meant three things: the moral code of the philosopher, the ethics of common sense and the moral conduct of the common man. There is mutuality between the last two, because the conduct of the common man is influenced by his moral code and his moral code is to some extent influenced by his conduct. There is great confusion on the point whether international morality is to be viewed as morality of the states or a morality of individuals. The realistic view of international morality states that morality can play no part in international relations while the idealists state that the same ethical codes would apply to individuals and states. The League of Nations states in its first article, "the same standards of

honour and ethics shall prevail internationally in the affairs of nations as other matters." President Roosevelt likewise declared that national morality is as vital as private morality. A state which does not conform to certain standards of ethical behaviour towards its own citizens and towards foreigners should be branded as uncivilised. One of the clearly recognised obligations forbids the infliction of unnecessary or unmitigated pain or death on human beings. People today are being increasingly conscious of a "world community" based on the two principles, such as the principle of equality among members of the community and secondly, that the good of the whole must take precedence over the good of the part. Chester Bowles points out, "to make possible the essential minimum year-by-year progress, the nations of Asia, Africa and Latin America must have substantial assistance from the more fortunate people who have successfully passed through this process of growth in a less politically explosive period."

1.03 Need for International Understanding

The modern revolution in technology, communications and transportation are rapidly bringing the people of the world into closer contact with one another and the world has become a 'Global Village.' Each year brings new additions to the growing list of international organisations made up of private citizens, associations or Government agencies dealing with a variety of functions. Cultural and student exchange programmes continue to multiply and efforts like the Peace Corps and CARE enable the Americans to contribute for worldwide elimination of poverty, disease and hunger. Multinational business organisations have spread their activities over the globe with little regard for national boundaries. Such increased contact alone among members of different cultures does not automatically lead to increased understanding. Such contacts may serve to reinforce ethnocentric stereotypes. It is through education at all levels, that a feeling of oneness can be cultivated. The problems of poverty, population, hunger, scarcity of resources and the growing gap between the rich and the poor nations create some sort of international tensions. All these problems have to be tackled simultaneously on a war footing in a united manner, if we are to survive in the present "high-risk environment".

"If the human species is to survive, it will need to achieve a world perspective, in other words, an understanding and a tolerance, if not a sympathy, for the diverse traditions and patterns of behaviour found throughout the world. Teachers at every level of education increasingly

ought to view their profession in an international context; to strive to foster in their pupils an awareness of supernational loyalties as the necessary condition for the legitimate fulfilment of national ones. Such education for international understanding must concern itself, not only with men's political and economic activities but also with the basic beliefs he holds about his own nature" (Boyle and Lauwerys, in Lyall, 1967, p. ix).

Major wars and incessant strife have been succeeded by periods of sober reflection during which nations have sworn to secure a more sympathetic and peaceful understanding between the people of the world.

Perhaps despairing of the ignorance, prejudice and antipathies of their own generation, the policy-makers have looked to the new generation to build a better world for the future.

That education should contribute in some way to international understanding is a cause to which all signatories to the United Nations Charter have been pledged for many years. The Preamble to the Constitution of UNESCO declares:

The States party to this constitution, believing in full and equal opportunities for education for all, in the unrestricted pursuit of objective truth, and in the free exchange of ideas and knowledge, are agreed and determined to develop and increase the means of communication between their people and to employ these means for the purpose of mutual understanding and a truer and more perfect knowledge of each other's lives.

On the whole it has been left to a handful of patient and persistent idealists to translate the easy promises of the governors into reality.

The last few years have seen many developments which indicate that education for international understanding should be an integral part of the curriculum of children. For instance, the prevailing conflicting tension in the U.S. have led to the establishment of numerous political and educational foundations whose primary target is to secure through new patterns of teaching and curriculum the development of new 'International Understanding' and 'World Order'.

The first thing which has to be made clear is that international understanding represents several aspects that are distinct yet relevant to each other. These are:

- (i) An awareness of societies that are distinct from each other.
- (ii) A consciousness about international supra-national relations, organisations and institutions and systems of world order.
- (iii) An appreciation of the fact that an individual does not live in isolation but is part of a wider global context. Hence their own lives, our moral responsibilities, historical explanation, understanding and responsibilities should be wider in scope.
- (iv) International understanding in the cognitive senses should have a place among curriculum objectives.

1.04 Curricula for International Understanding

"In education for international understanding, we should try to promote a comprehension of the ways of life, the values and the aspirations of all peoples of the world" (Long and King, 1964). The same sentiment echoes the ambition set out in the Preamble to the UNESCO Constitution. "The states parties to this constitution—are agreed and determined to develop and to increase the means of communication between their peoples and to employ these means for the purposes of mutual understanding and a truer and more perfect knowledge of each other's lives." "Men must learn," writes Taba (1962), "to escape their own narrow, personal and ethnocentric perspectives. The curriculum should develop the knowledge and perspective which is commensurate with the kind of world in which we live". These quotations imply the necessity for a 'world perspective', i.e., being able to view life and the world under a national and cultural framework of values other than one's own. "In other words, it is an extension of the idea of seeing the world as others see it." A world perspective in religion can mean a quantity of information about each of the world's major religions. Similarly, 'History with a world perspective' may involve studying about each of the major world civilisations. "To give students adequate preparation for today's world, the schools must help them to gain a global perspective" (King, 1971). Taba (1962) wants all individuals to develop a sensitivity which permits them to explore sympathetically and realistically the frame of mind, feelings, and values out of which, persons with a different orientation, think and act. "The supreme purpose of education for world understanding is to enable man to identify and revere that which today concerns them all ultimately as human beings. Education for world understanding consists in building a church in which men of all faiths can worship and in nourishing a conscience recognisable as being that of the human race" (Henderson 1968).

World understanding literature does not mean a mere plurality of ethnocentric perspectives, which people are urged to pursue, but a unified global perspective. A person who has a world perspective should know:

- about all parts of the world,
- how to interpret the world in the perspective of the values and conventions of different cultures.
- how to interpret the world order as one unified society amidst all the diversity.

We should learn to give priority not to one's personal or selfish interests but take into consideration the interests of the community, society and the wider world in which we live in.

2

ROLE OF UNICEF, UNO, UNESCO AND OTHER UN AGENCIES IN THE FIELD OF EDUCATION

2.01 Role of UNICEF in the Field of Education and World Peace

The United Nations International Childrens' Emergency Fund (UNICEF) was founded in 1946 to help in the rehabilitation of children of war-devastated Europe. In the early 1950's, the General Assembly enlarged the organisation's mandate to address itself to the problems faced by children of the third world following the declaration of 1979 as the Year of the Child. UNICEF pursued ever more intently its advocacy role on behalf of children not only in the developing countries but in the industrialised countries too. The excellent work carried out by UNICEF was acknowledged when they were awarded the Nobel Peace Prize.

Today, UNICEF has a vast network with regional offices serving 119 countries in the developing world, and is supported by several voluntary organisations in the industrialised world. UNICEF is an integral, but semi-autonomous part of the United Nations, with a 41-member Executive Board which usually meets once a year to establish policy review programmes and approve budgets. UNICEF cooperates with the respective governments and meets the needs of children by gearing itself to meet the needs of the hour. However, top priority is given to the underdeveloped nations. Advocacy and action focus on the high level of diseases and mortality among infants and young children.

In its work, UNICEF focuses on action at the community level, thus providing a link between children and families in the developing world. UNICEF is funded entirely through voluntary sources. In 1987, statistics show that more than 120 governments, including those of most countries where UNICEF was operating in various development

projects, provided about 77 per cent of aid to UNICEF. Primarily organised in industrial countries, the committees are concerned with increasing financial and other public support for UNICEF, thereby increasing its ability to come to the aid of the needy children. This is done either indirectly through advocacy and public education or directly through greeting card sales and other fund-raising activities. Thirty-four groups are now providing fund-raising and advocacy support to UNICEF.

2.02 Role in Education

UNICEF provides health education to parents through both formal and non-formal means. In Columbia, High School students numbering over two lakhs are being trained to be health educators. In Ecuador, 34,000 teachers and 1,50,000 students are helping to promote basic child health messages. In Turkey, 70,000 primary school teachers helped organise the nation's vaccination campaigns. The Presidents and Prime Ministers of Colombia, Senegal, Syria, Burkina, Faso, Turkey, Indonesia, Brazil and El Salvador have in the last three years taken the lead in the national vaccination campaigns and made it possible for the whole nation to mobilise the target of universal immunisation by 1990.

In Egypt, television had reached approximately 90 per cent of the parents with the message about the Oral Rehydration Therapy (ORT). In Bangladesh, radio advertisements are constantly reinforcing the effort to reach every home with knowledge of ORT. Television, radio, newspapers, the modern media have greatly succeeded in getting their messages across to the public and is now a major avenue through which guidance and accurate knowledge for promoting health knowledge to all can be imparted to an immeasurably large segment of people. Even religious heads have participated actively in these campaigns to provide health care and guidance since it was believed that if, "health is lost, everything is lost" and hence without health education any subsequent education was of no significance. In Turkey, the nation's Imams have preached the call for immunisation from every one of the country's 54,000 mosques. In Columbia, priests in every parish have preached sermons on the importance of immunisation and the Catholic church is today training 5,000 parish volunteers on child survival. In Ecuador, the Church bells of every parish have rung out on days that immunisation was to be carried out. In Brazil, the Church's "Pastorate of the Child" has trained 70,000 community workers in the basics of up-to-date child care.

2.03 Non-governmental Organisations

The voluntary organisations cut across all stratas of society extending from the Mahila Mandals to the Rotary Clubs, and also involves the Red Cross, various youth groups, trade unions and employers associations. These organisations stressed on the need for organising basic education services, primary health care, safe water supply and sanitation, family planning services or various vocations or simple technologies to brighten the tasks of women. The messages are designed to enlighten the common man with the message that on them could depend the health and lives of their children. These organisations are able to put their expertise at the disposal of national movements, whose prime aim is to make everyone informed about basic health care.

Community Health Workers

Millions of community health workers and traditional midwives have been trained in recent years, and they are now perhaps most instrumental in supporting and informing parents in the community itself about the importance of Oral Rehydration Therapy, immunisation, breast-feeding, birth spacing, better weaning, growth monitoring—measures which could reduce drastically child mortality and malnutrition in the developing world.

2.04 Strategy

The parent, particularly the mother, is the child's first and most dependable line of defence. The next is the local community. Hence UNICEF seeks to focus particularly on services based in the community itself, planned and supported by, and responsible to the people of that community. The strategic focus on community-based services has particular relevance as it is the most cost-effective and practicable means of saving children's lives and protecting their health or development. UNICEF believes that it is possible to reduce the rate of child and infant mortality, disability and disease considerably within a decade through the growth of community-based services and the spread of community workers who make these services viable.

Success in each of these methods described above would depend absolutely on the total involvement of parents and communities, whether it be for organising basic educational programmes in primary health care, safe water supply and sanitation, family planning services or simple technologies to brighten the task of young girls and women.

2.05 Role of United Nation's Organisation in the Field of Education and World Peace

The Atlantic Charter

On the 14th of August, 1941, President Roosevelt and Prime Minister Churchill signed a joint declaration embodying eight principles which ought to govern international relations. This declaration has been called the Atlantic Charter. According to this, the countries desire no territorial changes.

- a. seek no aggrandisement, territorial or other,
- b. respect the rights of all people to choose the form of Government,
- c. further the enjoyment by all states, of access to trade and raw materials,
- d. to bring about the fullest collaboration between all nations in the economic field,
- e. to establish a reach that will afford to all nations the means of dwelling in safety,
- f. to enable all to travel the high seas and oceans without hindrance,
- g. to abandon the use of force by all nations,

Speaking at the Banding Conference, General Romulo of the Philippines made the following observation: "The empires of yesterday, of which it used to be said 'The sun never sets' are departing one by one from Asia. What we fear now are those empires on which we know the sun never rises."

2.06 The United Nations

The UN Charter, the governing treaty was signed in 1945 by 51 nations, weary of war and aware that the League of Nations, which has been inoperative since 1939, was in need of replacement. The UN stands as a dual symbol of man's efforts to achieve peace and also to express his unyielding allegiance to national interest. Essentially, the principles which form the basis of the UN Charter grew out of the Atlantic Charter, signed in 1941. The UN Charter became effective on 24 October 1945. It became established on a permanent basis in its present location on the East River in New York. October 24th is celebrated as the Security, Justice, Welfare and United Nations' Day.

The responsibilities of UN are manifold. They include security, justice, welfare and human rights. Member nations of the UN accept four main duties: (a) to settle disputes peacefully; (b) to assist in

carrying out the provisions of the Charter; (c) not to assist any aggressor; and (d) non-interference in internal disputes. Languages spoken at UN meetings are English, French, Chinese, Russian, Arabic and Spanish. The UN flag consists of the UN emblem comprising two bent olive branches at the top, with the world map at the centre, against a light blue background. The budget of the UN is met by its member countries: USA (33.33%), UK (7.6%), USSR (10.7%), France (6.4%), Canada (1.25%), Nationalist China (5.75%) and India (1.85%). The UN has now a total of 125 different nations as its members.

The UN General Assembly, the main deliberative organ of the UN, discusses all matters of common concern, except those referred to it by the Security Council, as provided by the Charter. The Assembly meets once every year. Each member state has one vote. Normally a simple majority is required to settle any matter, but for important issues, a two-thirds majority is required. The President of the General Assembly is elected for one year only and the Assembly elects members of other organs of the UN. A special session of the Assembly can be convened by the Secretary General at the request of the Security Council or a majority of member of States.

2.07 The Principal Organs of the UN

(i) *UN Security Council*

The UN Security Council is the executive body whose main object is to maintain peace and security. It consists of 11 members of which 5 are permanent—USA, USSR, UK, France and National China. The other six are elected by the General Assembly for 2 years at a time. The Council is in session throughout the year and every member has the right to be President for one month. For any decision of peace and security, at least 7 votes are required, including the 5 from the permanent members. The veto powers of the Security Council members has created serious complications in carrying out the peace-keeping missions. There are 103 Soviet vetos on record whereas the USA has never used this power. The overriding authority of the General Assembly in which the US majority could counter-balance Soviet vetos, has been largely nullified by the independent and nationalistic Asian and African blocs.

(ii) *Economic and Social Council (Ecosoc)*

It consists of 18 members elected by the General Assembly once in 3 years. The Council is concerned with international economic, social, cultural, education and health problems confronting the UN. It also

promotes respect for human rights and fundamental freedom for all. Its main work is achieved by functional and regional commissions. Functional commissions deal with statistical matters, population and social problems, human rights, status of women, narcotic drugs, international community and trade and protection of minorities. Regional commissions are concerned with problems in four areas—Europe, Asia and the Far East, Latin America and Africa.

(iii) The Trusteeship Council

The Trusteeship Council is in charge of territories merely held under the mandate of the League of Nations. Its main object is to promote political, economic, social and educational advancement of these territories and their progressive development towards self-government and independence. The Council has 14 members with 7 from administering and non-administering nations. There are three trust territories under the trusteeship system and they are East New Guinea under Australian administration, Nauru administered by Australia on behalf of Australia, New Zealand and the UK and the Pacific Islands under the US Administration.

(iv) International Court of Justice

This is the principal judicial organ of the UN, with its headquarters at The Hague, Holland. It consists of 15 judges elected to 9-year terms by the General Assembly and Security Council, voting independently. Every member state has access to the court and is pledged to comply with its decisions. The Court has jurisdiction over all the cases specifically referred to it and over all matters specifically provided for it by the Charter or in treaties and conventions in force. The Court tenders legal opinion on matters referred to it by the Security Council, other organs and the specialised agencies authorised by the General Assembly.

(v) The UN Secretariat

This performs all administrative functions of the UN organs and their programmes and policies. The Secretariat is composed of international staff. The General Assembly appoints the Secretary General on recommendation by the Security Council. As the Chief Administrator of the UN, he is responsible for bringing to the attention of the Security Council any situation which in his opinion threatens international peace and security. The first Secretary General of the UN was Mr. Trygve Lee of Norway. At present Mr. Javier Perez de Cuellar of Peru is the

Secretary General, succeeding Dr. Kurt Waldheim of Austria. Dag Hammarskjöld of Sweden and U Thant of Burma were the Second and Third Secretaries General.

2.08 Specialised Agencies of the UN

The UN Charter provides for the establishment of agreements between the UN and the "specialized agencies having wide responsibilities in economic, cultural, education, health and related fields". Each agency is autonomous, with its own executive and legislative bodies, secretariat and budget and, each reports annually to the Economic and Social Council.

(i) International Atomic Energy Agency (IAEA)

This was established in 1957 with its headquarters in Vienna with the purpose of accelerating and enlarging the contribution of atomic energy to peace, health and prosperity and to ensure that the assistance of IAEA is not needed to further military purposes.

(ii) International Labour Organisation (ILO)

Established in 1919, the ILO became a specialised agency of the UN in 1946 with its headquarters in Geneva with the purpose of contributing to the establishment of lasting peace by promoting social justice, to the improvement of labour conditions and living standards through international action; and to the strengthening of economic and social stability.

(iii) Food and Agricultural Organisation (FAO)

This was established in 1945, with its headquarters in Rome, with the purpose of raising the levels of nutrition and standards of living, improving the efficiency of production and distribution of food and agricultural products from farms, forests and fisheries, thus contributing to an expanding world economy.

(iv) United Nations Educational Scientific and Cultural Organisation (UNESCO)

This was founded in 1946 with its headquarters in Paris with the purpose of contributing to peace and security by providing international collaboration through education, science and culture, in order to further universal respect for justice, the rule of law, human rights and fundamental freedom affirmed by the UN Charter, to broaden the base of education so that opportunities for going to school could be availed

by every strata in a bid to wipe out illiteracy and to raise the educational standard throughout.

(v) World Health Organisation (WHO)

This was founded in 1948 with its headquarters in Geneva with the purpose of attaining the best possible levels of health. *WHO* services are advisory and technical.

(vi) International Bank for Reconstruction and Development (World Bank)

This was established in 1945 with its headquarters at Washington, DC, USA with the purpose of assisting reconstruction and development of member states by facilitating capital investment; supplementing private investment by providing loans; promoting foreign investment; a balanced growth of international trade, and equilibrium in balance of payments.

(vii) International Development Association (IDA)

This was established in 1960 with its headquarters in Washington, DC, USA, under the administration of the World Bank. IDA makes loans available to the less developed countries on terms that are more flexible and bear less heavily on the balance of payments than the terms of conventional loans.

(viii) International Financial Corporation (IFC)

This was established in 1956, with its headquarters in Washington, DC, USA to further economic development through private enterprise in developing countries. IFC invests in private enterprises without government guarantee, if private capital is available on reasonable terms and helps to stimulate investment of foreign and domestic capital and serves as a clearing house, bringing together private capital, investment opportunities and experienced management.

(ix) International Monetary Fund (IMF)

This was established in 1945 with its headquarters in Washington, DC, with the aim of promoting international monetary cooperation and expansion of international trade; to promote exchange stability, maintain orderly exchange arrangements to assist in the establishment of multi-lateral system of payments between members and to eliminate foreign exchange restrictions which hamper world trade.

(x) International Civil Aviation Organisation (ICAO)

This was established in 1947 with its headquarters at Montreal, with the

aim of setting up international standards and regulations for civil aviation and to study international civil aviation problems.

(xi) *Universal Postal Union (UPU)*

The UPU was established in 1875 with its headquarters in Berne, Switzerland. It seeks to form for all its member states, a single postal territory for reciprocal exchange of correspondence, and to promote international collaboration in the organisation and improvement of postal services. Each member state agrees to transmit the mail of other members by the best means used for its own mail.

(xii) *International Telecommunication Union (ITU)*

This was founded in 1865 at Paris, became a specialised agency of the UN in 1947, with the aim of establishing international regulations for telegraph, telephone and radio services, in order to further the development and extend their utilization by the public at the lowest possible rates. Its headquarters is in Geneva, Switzerland.

(xiii) *International Meteorological Organisation (IMO)*

This was established in 1950 with its headquarters in Geneva with the purpose of promoting international cooperation in meteorology, establishment of a world network of meteorological stations and rapid exchange of weather data, to promote standardisation of weather observation and publication of statistics and to further application of meteorology to aviation, shipping, agriculture and other activities.

(xiv) *Inter-Government Maritime Consultative Organisation (IMCO)*

IMCO was established in 1959, with its headquarters at London to promote international cooperation in maritime matters and to provide machinery for consultation on shipping matters, to remove discriminatory practices and unnecessary governmental procedures and to encourage high standards of navigation and safety.

(xv) *General Agreement of Tariffs and Trade (GATT)*

GATT was drafted in 1946 with 66 nations as parties and with its headquarters in Geneva. GATT is designed to ease trade barriers and to establish rules of fair trade.

(xvi) *United Nations International Children's Emergency Fund (UNICEF)*

With headquarters in New York, UNICEF is an inter-governmental organisation concerned with the welfare of children. It proposes to wipe

out and prevent diseases afflicting children and to assist in providing trained nurses and midwives for maternity and is also currently engaged in applied nutrition programmes in developing countries.

2.09 Major International Organisations

In addition to the official specialised agencies and organisations working under the aegis of UN there are certain international agencies which seek to promote the interests of groups of nations and deal with certain special problems. They are as follows:

(i) Colombo Plan

This plan was founded in 1950 in Sydney, Australia, in pursuance of a proposal by members of the British Commonwealth for a plan of economic development in South and South-East Asia, with the purpose of providing technical assistance in the form of training facilities and personnel expert advice and equipment.

(ii) European Economic Community (Common Market)

The EEC was founded in 1958, to promote throughout the European community growth of economic activities, a balanced expansion, increased stability, raising the standard of living and a close relation among the common markets of member states.

(iii) League of Arab States (Arab League)

This was founded in 1945, in Cairo, Egypt, to strengthen ties among the Arab States and to coordinate their political activities, to protect their integrity, to safeguard their independence and to ensure closer co-operation in political, cultural, health, economic, legal and social areas.

(iv) North Atlantic Treaty Organisation (NATO)

This was founded in 1948 with its headquarters at Paris. NATO is one of the major Western counter-measures in the cold war against Soviet aggression, established to safeguard the freedom of its members. NATO considers an armed attack on any member as an attack against them all.

(v) Warsaw Treaty Organisation

Set up in 1955 by the representatives of 8 Communist countries with its headquarters at Moscow, this organisation is a mutual defence treaty organisation, the Soviet bloc's equivalent to NATO. A unified military command directs the united forces of this organisation.

(vi) Organisation of African Unity (OAU)

This was founded in 1963 by representatives of 32 African governments to promote the unity and development of Africa, to defend the sovereignty of its member nations and to eradicate colonisation.

(vii) Organisation of American States (OAS)

This was founded in 1948 at Bogota, Columbia, with its headquarters at Washington, DC, USA to strengthen peace and security in America and to provide for joint action on the part of member states in the event of aggression and to endeavour to work out solutions of political, judicial and economic problems within the hemisphere.

2.10 Role of the UN in International Affairs

The adaptability and credibility shown by UN over the past three decades indicates a sense of life and movement which ought to make possible its further development. A.H. Feller says, "In this generation, the farthest we have been able to come towards world government is the UN which encompasses a law which is the Charter and a community which is the organisation. A fully developed world order would require a closely integrated world community and highly developed system of world law." "So far," observes Dr. Eichelberger, "the United Nations survived one defiance after another and has seemingly emerged stronger than ever. The refusal of some nations to pay their assessments for the UN peace-keeping forces threatens the organisation with bankruptcy. The African states are in danger of permitting racial hatred to blind them to the obligations that they assume as members of the organisation. The world will have peace of the sense of moral unity imposed on nations by the Charter and habits of cooperation are strong enough to prevail against the forces of fragmentation." Peace and justice in international relations require civilised methods of mutual adjustment. The methods adopted by the UN are debates in the General Assembly, informal conferences and technical consultations.

The historic Universal Declaration of Human Rights was proclaimed by the UN General Assembly on December 10, 1948 as a common universal standard and the rights enumerated therein are regarded as the foundation of freedom, justice and peace in the world and recognition of the individual's dignity and equality with each other. This declaration outlines the goals that nations should try to achieve for its people in the field of human rights.

ROLE OF NON-VIOLENCE FOR WORLD PEACE

3.01 Meaning

Truth and non-violence are inseparable, they are like two sides of the same coin. A seeker after truth has necessarily to follow the path of non-violence. Non-violence, not untruth, but non-violence and truth is the law of our being. Ahimsa and truth are so intertwined that it is practically impossible to disentangle and separate them. Ahimsa is the means and truth is the end. If we take care of the means, we are bound to reach the end, sooner or later. Non-violence in its dynamic condition means conscious suffering. It does not mean meek submission to the will of the evil-doer, but it means putting one's soul against the will of the tyrant. "Working under this law of our being, it is possible for a single individual to defy the whole might of an unjust empire to save his honour, his religion, his soul, and lay the foundation for that empire's fall or its regeneration." Non-violence is not a resignation from all real fighting against wickedness. On the contrary, the non-violence that Gandhiji conceptualised is more active and is the real fight against wickedness than retaliation, whose very nature is to increase wickedness. Non-violence is a mental and, therefore, a moral opposition, aimed at blunting the edge of the tyrant's sword, and not putting up against it a sharper-edged weapon. Thus non-violence is an active force of the highest order. It is the soul force or the power of Godhead within us.

Consciousness of the living presence of God within us, is undoubtedly the first requisite. If one has pride and egoism, there is no non-violence, for non-violence is impossible without humility. The religion of non-violence knows no division of mankind. The dignity of the man requires obedience to a higher law—to the strength of the spirit.

By its very nature, non-violence cannot seize power, nor can that be its goal. But it can do more; it can effectively control and guide power without capturing the machinery of the government. In the duel between courses of violence and non-violence, the latter have always come out victorious in the end. Under non-violence the mass, if disciplined, should be capable of being organised. Violence, even it appears to do good, is only temporary, the evil it does is permanent. Strength does not come from physical capacity but it comes from an indomitable will. Gandhiji believed that, "there is no escape from the impending doom, save through the bold and unconditional acceptance of the non-violent method with all its glorious implications. The world of tomorrow will be, and must be a society based on non-violence."

3.02 Mahatma Gandhi's Contribution

The adoption and propagation of the cult of non-violence by Gandhi was undoubtedly a unique phenomenon in our country. As explained earlier, Gandhiji was greatly influenced by numerous intellectuals, religious gospels and philosophical writings. But a significant phenomenon which had a deep imprint on his mind was the struggle of Indians, since 1857 against the Raj and the subsequent nationalist activities undertaken by Indian patriots under these circumstances. Gandhiji also witnessed the flow of the currents of violence at various levels. He fully realised the fact that violent means were no longer proving effective in the Indian situation. He voiced his disapproval over armed conflicts which he felt would not bring the desired end and subsequently propagated the cult of non-violence as a more effective path to independence. Thus in the 1920's and the 1930's when Gandhiji launched the two movements, the significant emphasis was laid on the cult of the non-violence.

In an issue of the *Young India*, Gandhiji gave a comprehensive definition of non-violence to be practised by a Congress satyagrahi in his relationship with a person who had behaved violently. He did not relish the idea of retaliation of any kind with a wrong-doer. Instead he preached the gospel of non-violence for his true followers and workers. When a person claims to be non-violent, he is expected not to be angry with one who has injured him. He will not wish him harm: he will wish him well; he will not shout at him; he will not cause him any physical hurt. He will put up with all the injury to which he is subjected by the wrong-doer. Thus, non-violence is complete innocence. Complete non-violence is to be observed towards all animate things and all forms of

life, be it high or low. Non-violence is therefore in its active form, goodwill towards all life, it is pure love as mentioned in the Hindu scriptures, in the Bible, and in the Koran.

Non-violence is a perfect state. It is a goal towards which all mankind moves naturally, though unconsciously.

We feel that retaliation is the law of our being, whereas in every scripture we find that retaliation is nowhere obligatory but only permissible. It is restraint that is obligatory. Retaliation is indulgence requiring elaborate regulation. Restraint is the law of our being. For, highest perfection is unattainable without constant restraint.

Gandhiji called the strategy non-violent resistance to an unjust law, carried out by masses, sworn to God and psychologically prepared for imprisonment or death. The concept was termed as *Satyagraha*—*sad* meaning truth and *agraha* meaning firmness or insistence. For the sake of clarity, Gandhiji changed it to *satyagraha*. In Gujarati *satya* means both truth and love and both are attributes of the soul. *Satyagraha* is thus variously translated as 'soul force' or 'insistence on truth'. Thereafter, Gandhiji's organisation was known as the *Satyagraha Association* and its members—the warriors of truth and love—as *satyagrahis*.

For Gandhiji, and in time the entire civilised world, *satyagraha* was more a process than a strategy. It was not so much a philosophical statement but a slogan—a convenient shorthand for describing either one particular way, or all the various ways, in which he would apply politically the things he kept learning from his "experience with truth".

With *satya* combined with *ahimsa*, you can bring the world to your feet. *Satyagraha* in its essence is nothing but the introduction of truth and gentleness in the political, i.e., the national life. It is never the intention of a *satyagrahi* to embarrass the wrongdoer. The appeal is never to his fear; it is, and must be, always to his heart. The *satyagrahi*'s object is to convert, not to coerce the wrongdoer. He should avoid artificiality in all his doings. He acts naturally and from inward conviction. A *satyagrahi* must never forget the distinction between evil and the evil-doer. He must not harbour ill-will or bitterness against the latter.... A *satyagrahi* will always try to overcome evil by good, anger by love, untruth by truth, and by *ahimsa*. There is no other way of purging the world of evil. Since *satyagraha* is one of the powerful means of direct action, a *satyagrahi* should exhaust all other means before he resorts to direct action. He bids goodbye to fear and is never afraid to trust the opponent. Nothing enduring can be built upon violence and to

answer brutality with brutality is to admit one's moral and intellectual bankruptcy and it can only start a vicious circle. Viewed long range, Gandhiji's mission of satyagraha and non-violence was quite productive.

Non-violence is fine for winning independence, went the message to the world after Gandhiji's death and it is unthinkable as a policy of state. There are those who maintain that Gandhiji was a phenomenon, peculiar to his time and place. Non-violence, they say, may be a laudable concept but it is contrary to human nature as it is to the nature of governments. There are others, however, who argue that Gandhiji was really ahead of his time, that his ideas have more relevance for the future than they did even in his lifetime. There are many political theorists who since his death have come to see satyagraha or some form of ritualised non-violence as the only realistic alternative to nuclear warfare and global annihilation. There are urban planners in America who find in his village experiments promising models for population dispersal and government decentralisation. But Gandhiji's most important contribution may ultimately turn out to be not to religion, politics or sociology, but mainly to psychology—to our understanding of ourselves and particularly our potential growth—for he gave a new vision of man. "Non-violence is the law of the species," he maintained, and he lived his life to prove that it could be. Particularly, he demonstrated man's capacity to change. In a scientific and a technological world, where change is likely to be equated with survival the lesson could be crucial.

What Gandhiji succeeded in doing in India had a decidedly moderating influence on the European colonial powers after the Second World War. The Indian experience established a pattern by which all the nationalist movements in Asia and Africa could be peacefully accommodated. Between 1956 and 1965 more than fourteen American nations achieved their independence. Gandhiji once told an American visitor, "It may be through American Negroes that an unadulterated message of non-violence will be delivered to the world," and for a while it looked as if he might be right. For ten years, led by Dr. Martin Luther King, American Blacks submitted passively to billy clubs, police dogs, electric cattle prods, mounted vigilantes, bombings, and imprisonment in a relentless round of sit-in's, kneel-in's, freedom rides and marches. It was entirely due to their efforts that the Civil Rights Acts of 1964 and 1965 were passed, bringing to an end legalised racial segregation in the

United States. Dr. King took pains to acknowledge his indebtedness to Gandhiji. As a result, Gandhiji entered the honoured company of American freedom fighters. Between Swaraj in India and 'Freedom Now' in America, between 'Soul Force' (Satyagraha) and 'Soul Power' between Gandhiji's *March to the Sea* and Dr. King's *March to Montgomery*, events have drawn a secure connection. Black Americans have read of how, in 1893, a White conductor threw Gandhiji off a railway coach, forcing him to make the decision that led to his organising the Indian revolution. They consider it no mere coincidence that their own revolution began in 1955 when Rosa Parks, a middle-aged Negro seamstress, refused to give up her bus seat to a White man. Personal and mob violence have increased, as if in direct ratio to the increase in the earth's population. Incidents of international terrorism have become so common that they can no longer be considered merely by the bizarre acts of a deranged few. Through his non-violent approach, Gandhiji attained freedom for India from the British rule and in the process attempted to spread his gospel of universal brotherhood and non-violence. But his failure in the second mission is evidenced by the world's continuing reliance on warfare. But such good and powerful ideas never die. In a world dominated by violence, corruption, wars and threats of war, the memory of Gandhiji and his practice of non-violence nags uncomfortably in the minds of administrators, statesmen and generals. If freedom can be attained through non-violent means, he felt that it could be also retained by the same means. And according to him truth and non-violence are not just matters of individual practice but can be practised by groups, communities and the world. For every problem lends itself to solution if people are determined to make the law of truth and non-violence the law of life.

Tagore says, "Yours is the heaven that lies in the common dust, and you are there for me, and you are there for all."

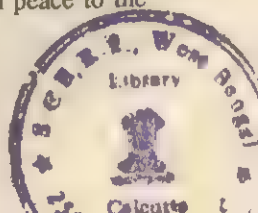
Jawaharlal Nehru once said, "The light that shone in this country was no ordinary light; the light that has illumined this country for many years, will illumine this country for many more years still, and a thousand years later that light will still be seen in this country, and the world will see it, and it will give solace to innumerable hearts, for that light represented something more than the immediate present; it represented the living truth." That is probably projected by the eternal truth and non-violence which alone could bring eternal peace to the world.

S.O.E. K.Y. West Bengal

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4

WORLD HUNGER

4.01 What is Hunger?

"Hunger is not appetite but it is a debilitating, devastating, intensely painful human experience. Hunger hinders an individual's ability to think clearly, to work productively and resist disease. Whereas hunger in society destroys family, structure and culture, drains the economy, creates antagonisms and divisions among people, it also destabilises Governments and threatens the peace and security of the world," quotes a report from the Hunger Project Organisation.

Persistent hunger results in chronic malnutrition due to the consumption of lower calories. This chronic undernutrition is the most basic and widespread manifestation of hunger today and it is the least recognised. Hunger is a global phenomenon. It is estimated that about one billion people in the world are undernourished. Each year, 15 to 20 million people die as a result of hunger. This means that 41,000 people die every day, 28 persons every minute, out of whom 21 are children. This is the most tragic aspect of poverty and hunger. On this basis, the Indian sub-continent has nearly one-half of the world's hungry of which India alone has one-third of the hungry population of the world. Africa and the rest of Asia have 40 per cent (approx.) and the remaining are in Latin America and other parts of the world. The situation is most bleak in Sub-Saharan Africa, where one-half to three-fourths of the population are in absolute poverty. China is much poorer than the rest of East Asia but it has eliminated the worst aspects of poverty by redistributing wealth.

Economic growth and poverty reduction are aspects of the same process. Poverty is too widespread in most developing countries to be solved by redistributing income assets from the rich to the poor. When the World Bank first started to focus on poverty in the early 1970's it

urged continued efforts to accelerate economic growth in the developing countries.

4.02 Role of FAO in Removing World Hunger

FAO is one of the organs of the UNO. It was established in the year 1945, and it is governed by the General Conference which meets once in two years. It elects the Director General, sets policies, determines the scale of contributions of member nations and votes on the programme of work and budget for the following two years. The FAO council is the interim governing body and 49 member nations are elected for a three-year term for it. There are a number of standing committees such as the Programme Committee, committee on fisheries, committee for commodity problems, finance committee etc. FAO offers technical assistance to nutrition, fisheries, forestries, animal husbandry, poultry, soil and water management, irrigation, horticulture, seeds production, dairying etc, with Rome as its headquarters. Thus FAO's contribution to the above-mentioned areas attempts at removing world hunger to a considerable extent.

4.03 Education for Removing World Hunger

Education should make a person self-reliant and independent by developing the required knowledge, skills, attitudes, values and aspirations. Modern methods for more production should be evolved through innovative and challenging education. Education should facilitate not only national integration but also international understanding by understanding others' problems. It should liberate the individuals from selfishness and pave the way for mutual help and sharing. Education at present is irrelevant to the needs and interests of the learners and as a result it produces only masses of unemployed and frustrated individuals. If education is to combat world hunger, it must be learner-oriented and need-based and should have a liberating influence.

4.04 International Association of Education for World Peace (IAEWP)

The Second World Congress of International Association of Educationists for World Peace held in India in December 1978, discussed the solutions for world peace. It's recommendations were as follows:

1. That all governments of the different nations of the world should link education with production so that educational system may

become a fitting instrument with production for national and international development.

2. The UN, UNESCO, FAO as well as philanthropists, and rich people should provide financial assistance for the needy nations to implement better and effective education to enable the present and future generation to earn their bread and peace.
3. The world hunger studies in colleges and universities should be institutionalised. A committee on hunger action in every institution should facilitate and coordinate the response of the academic institutions to the national and world hunger crisis.
4. That all the educated people must cooperate in the endeavour of eradicating illiteracy from the world and provide continued non-formal education suited to the local needs and conditions, as a prelude to solving the problem of world hunger, through peaceful means with commitment and dedication.
5. The exchange of educators interested in peace movement should be encouraged and promoted for undertaking research and studies in different parts of the world to equip themselves better with first hand knowledge and experience, which in turn will help solve such problems easier through non-violent means.

It also suggests that:

- a. Teachers should educate students and other people for planned family to control the population.
- b. Schools, colleges and universities should educate students for self-reliance.
- c. Agricultural experts and educators should educate farmers to grow more food by acquainting them with better ways and cheaper means.
- d. Health educators, hygienists and doctors should educate the masses regarding food habits and preparing nutritious foods, etc.
- e. Peace educators should make the people aware of the problem of world hunger and educate them on not wasting the food.

IAEWP should request the statesmen of the developing nations to transfer their surplus food to shortage locations under the plan of food for peace.

4.05 Immigration and Food Supply

World food banks move food to the people hastening the exhaustion of the environment of the poor countries. Unrestricted immigration on the

other hand, moves people to the food, thus speeding up the destruction of the environment of the rich countries. In this connection, Peter Singer proposes what he considers an uncontroversial moral principle. If it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought morally to do it. Adherence to this principle would substantially alter the lifestyle of the affluent. From the moral point of view, the development of the world into a "global village" has made an important though still difference to our moral situation unrecognised. Singer claims that "Suffering and death from lack of food, shelter and medical care are bad" and hence his principles imply an obligation to eliminate starvation. Arthur proposes an alternative, a duty of benevolence, which sometimes obligates the affluent not to exercise their right to consume. But Aiken maintains that human beings have the same needs, fears, pains and wants, that they have a moral right to be saved from starvation, which is derived from the general right—the right to be saved from preventable death due to deprivation. Recognition of this right would substantially alter the moral debate on world hunger. Fletcher argues that food assistance must not be given indiscriminately. For those countries, which have exceeded their carrying capacity, assistance is, in the long run harmful. Even though we could, we ought not to assist them. His slogan is: "Give if it helps, but not if it hurts." But Watson argues that in a world of scarcity the overriding moral principle of equity demands the equal sharing of food even if this leads to universal malnourishment or the termination of the species.

Food and population experts assert the following about the world we live in:

- 1 One-third of the world's people (the West) consume two-thirds of the world's resources.
2. Two-thirds of the world's people (the Third World) are malnourished.
3. Equal distribution of the World's resources would result in everyone being malnourished.

There is ample evidence that these statements are true. O'Neill assumes that persons have a right not to be killed unjustifiably with a corresponding duty not to kill. Since many famine deaths are unjustifiable it is our duty to try to prevent them.

4.06 Productive Justice

Richards argues that the principles of productive justice are needed as supplements to principles of distributive justice since insufficient production and under-production may be, in themselves, unjust. There is too little food in the world and what little there is, is unjustly distributed. The practices responsible for keeping world food production at harmfully low levels are unjust because they cause harm that could be averted, at a cost of only minor, morally insignificant sacrifices. Also unproductive practices kill people, and they are unjust because they are analogous to homicide in the morally relevant aspects. For the hungry of the earth have a right to a reasonably high level of agricultural production. Distributive justice cannot be achieved without production, from which it follows that justice requires production.

4.07 Conclusion

Our first priority to reduce world hunger would be by increasing agricultural production that is necessary to produce sufficient food to feed the world. Secondly, individual efforts should be concentrated on curtailing population growth as a long-range remedy to the problem. Affluent people have a duty, founded on the principle of benevolence, to assist others who are in need of it. Similarly, affluent nations are morally required to assist those in impoverished countries. Some people have all the goods—more than they need—others do not have enough. If the problem is to be remedied these goods must be redistributed. For this reason much of the world hunger discussions and debates centre around distribution. Some people suggest that although it would be good to have voluntary redistribution, it is not something which the 'haves' must do for the 'have nots'. Although distribution is important, it is not the only important issue. Consideration of productive justice are essential to the issue of world hunger. If requirements of productive justice were satisfied, the world hunger problem would not be as severe. James Rachels argues that the need for additional food to feed the starving requires that individuals decrease or eliminate meat from their diets. For meat, he argues, is a very inefficient source of protein. Feed-lot animals particularly beef cattle, eat large amounts of human-consumable protein yet, only a small portion of it is returned to humans in meat form. As much as 85 per cent of the usable protein is lost in the production of meat. This lost protein could be distributed to starving people, it could go a long way towards solving the world food shortage. Thus vegetarianism is relevant to both productive justice and distributive justice.

PROBLEM OF POVERTY

Poverty is the deprivation of food, clothing and housing which are the basic necessities of life, from which all other accompanying deprivations like educational, intellectual, cultural and moral deprivations follow. This is termed as 'the culture of poverty' by the anthropologists. Every citizen has a right to a decent standard of living and the negation of such rights is called deprivation.

5.01 The Culture of Poverty Theory

Ancient religious thinkers considered poverty as an act of God, a curse on the sinners for their vices in their previous births. Even today some social scientists, anthropologists in particular believe in this theory. Thus justifying poverty, these anthropologists developed a fatalistic outlook, and believed in the existence of a culture of poverty. It was Oscar Lewis who opined that poverty has its own culture (COP). To him it is a way of life that develops among some of the poor, in a society characterised by cash economy, wage labour and production for profit, low wages, high rate of unemployment and under-employment and failure to provide social and economic organisations for the poor.

5.02 Poverty as a Social Stratification

Many sociologists consider poverty as a social stratification. Economic status is considered to be in the long run the basic issue of poverty accompanied by education and social mobility [Miller and Ruby, (1968)]. Rossi and Blum (1968) identified the following: (1) class defined as distinctive value patterns and differential associations, (2) distribution of resources and income, and (3) distribution of prestige (occupation, income and education) as the three major constituents of social stratification. Thus problem of poverty is a problem of inequality and re-distribution.

5.03 Problem of Economic Inequality

Poverty is conceived as the difference in felt wants and the power to satisfy them. Victor R. Fuchs (1967) defines a poor person or a family as one whose income is less than the average income of the community. Poverty has also been defined in terms of nutritional deficiency and malnutrition. A person is considered poor, if he does not get the minimum required calories from his food. As nutritional requirements differ from person to person, place to place, occupation to occupation, besides being dependent upon a number of other factors such as food habits, methods of cooking etc., it is rather difficult to find the nutritional deficiency of all persons. In an absolute sense, poverty has been defined as lack of basic necessities of life or as a problem of want and deprivation. A person needs food, clothing, housing, education and health for smooth and successful functioning. If these are denied, the problem is one of want and deprivation. Though it is difficult to establish the minimum food, clothing and housing that is required to keep a person and his family alive and active, there are different views regarding food and nutrition. By and large, a broad consensus has emerged that a family of 4-5 persons must have Rs. 6,400 a year to achieve this minimum. Those with annual income less than Rs. 4,800 per annum are called very poor and others with less than Rs. 3,500 per year are the poorest of the poor. In fact, on an average, 40 to 50 per cent of our families live in poverty and more than 85 per cent of the rural people and 60 per cent of urban people can be said to be in abject conditions of poverty, lacking even the basic minimum requirements of a dignified and hygienic human life. The factors responsible for poverty can be listed as the unequitable distribution of wealth and imperfect functioning of the economic institutions, unfavourable physical conditions, such as poor natural resources, bad climate, and finally faulty hereditary or environmental conditions.

5.04 Education and Poverty

The task of eradicating poverty and raising the standard of living was the foremost educational objective of the Kothari Education Commission (1966). Ours is a land with 'poverty amidst plenty'. Though the country is endowed with rich natural resources, people remain poor due to the lack of exploitation of the available natural resources. To eradicate poverty, there is the need for increasing production and for this education must be linked to economic productivity of the country and education should aim at the development of the human resources and then the natural ones.

5.05 Work Experience

According to the Commission, work experience denotes participation of the students in the socially useful productive work (SUPW) in the school, in the home, in the farm, in a factory or any other productive situation. Work experience can be introduced as an integral part of all general and vocational educational programmes that relate education to life and productivity. According to the Report of the Commission, all purposeful education should include literacy or a study of languages, humanities, and social sciences; numeracy or a study of mathematics and natural sciences, work experience and social services. As a method of integrating education with work, work experience is essential in societies which adopt science-based technology. It not only relates education to productivity but also facilitates social and national integration, by strengthening the links between individual and the society and by effecting understanding between the education and the illiterate masses. It attempts to bridge the gap created by the traditional system between the world of work and that of education. It makes the students realise the value of the 'dignity of labour' by linking intellectual with manual work. By generating the habit of hard and responsible systematic works, it facilitates the entry of the youth into the world of work, thereby increasing the pace of national productivity. For this, the secondary education should have a vocational bias, as it is in the terminal stage in the case of most of the students. This will reduce the problem of educated unemployment as it will divert the minds of the youth into a variety of self-employed jobs. The Commission stressed on raising the quality of science teaching, and, courses on science for the masses should be conducted. Also the Commission rightly believes that science must be wedded to spirituality in order to promote the democratic way of life and our cultural tradition.

5.06 Measurement of Poverty

There are two types of standards which are common in economics. They are the absolute standard and the relative standard. In the absolute standard, the minimum physical quantities of the cereals, pulses, milk, butter etc. required for subsistence level are determined. Secondly, the price quotations of these physical quantities are calculated. Thirdly, they are converted into money terms. Fourthly, per capita consumer expenditure is determined by aggregating all these quantities and finally the population whose level of income on expenditure is below this per

capita consumption expenditure is found out and this population is said to be below the poverty line.

To measure the relative standard, income distribution of the population in different fractile groups is estimated. A comparison of the standards of living of the top 5 to 10 per cent with the bottom 5 to 10 per cent of the population reflects the relative standards of poverty. This measure indicates the relative position of different segments of the population in the income hierarchy. Even in rich societies such poverty pockets exist. It is the existence of extreme mass poverty that is the cause of concern in India.

The Planning Commission has defined the poverty line on the basis of recommended nutritional requirements of 2,400 calories per person per day for urban areas. In rupees the poverty line is the mid-point of the expenditure class. In 1973-74 consumer expenditure data in which the calories needs are satisfied, the cut-off points turn out to be Rs. 107 and Rs. 122 for rural and urban areas respectively at 1984-85 prices (Seventh Five Year Plan, 1985-90). It works out to around Rs. 6,400 per annum per family of 5 in rural areas. Further, poor households can be categorised in to the following 4 grades:

Grades of Poverty

Grade	Family Income (Rs.)
1. Destitute	up to - 2265
2. Extremely poor	2265 - 3500
3. Very poor	3500 - 5000
4. Poor	Above 5000

The percentage of population below the poverty line in 1984-85 projected with the above cut-off points and estimated aggregated consumption is shown below:

The Percentage of Population Below the Poverty Line

Categories	1984-85	1989-90
Rural	39.9	28.2
Urban	27.7	19.3
All India	36.9	25.8

Source: Seventh Five Year Plan 1985-90

It can be seen from the above table that more than one-third of India's rural population lives below the poverty line.

5.07 The Absolute Poverty Line Approach

The concept of using the poverty line in estimating rural poverty was first used by Arthur Young during the eighteenth century. But it was Charles Booth who first attempted to give a scientific definition in 1889, in his epoch making door-to-door survey of East London. This was later to become the most popular and widely used approach in defining poverty. But its choice is based on need and convenience, due to the easy availability of PPD (1962) poverty line. But opinions are widespread regarding the minimal amount of income for deciding the poverty line. According to Charles Booth (1889), "Poverty line may be drawn at an income level where means may be sufficient but are barely sufficient for independent life. Poor are those who are struggling to obtain the necessities of life and make both ends meet. Very poor are those whose means are insufficient for them according to the usual standard of life in the country and hence are forced to live in a state of chronic want." But P.H. Mann draws the poverty line at an income level which does fall short of income necessary for physical efficiency, for the non-satisfaction of many social needs does not impair the physical efficiency. In general, the poverty line is drawn at an income level which is just sufficient to meet the basic minimum needs of a family.

5.08 Meaning of Poverty in Different Nations

Poverty exists as long as a person or a family does not get the minimum basic needs such as food, clothing shelter, nutrition etc. Though there were rich and poor people in society, it is only with the emergence of the exchange system and a scale of values that poverty became a social problem. Poverty was considered a problem due to the comparison of the differences in the economic status with the prevailing standards. Thus poverty is a relative concept. In the West, people are not considered poor because they are unable to get the basic necessities of life such as food, clothing and shelter but only when their possessions are considered insufficient compared to the existing standards. Probably, the inability to sign cheques, possess a TV, car, house etc., is considered as indicators of poverty whereas they are considered as luxuries or signs of richness in our country.

5.09 Nature and Causes of Poverty

On the production side, poverty consists of low productivity cheques, poor income, high indebtedness, non-existent savings, lack of skills, inadequate resource base; unemployment, under-employment. On the consumption side, the major symptoms are nutritional deficiency, proneness to disease and low productivity.

The structural causes of poverty mainly relate to the highly skewed distribution pattern of ownership of various factors of production.

Lack of access to a minimum amount of land is a major cause of rural poverty as majority rural poor are agricultural landless labourers. Rural poverty results from low productivity of land and labour.

- Lack of opportunities for productive employment to absorb the growing labour force. High rate of population growth and absence of scope in urban-based activities have made matters worse.
- The demographic factor is also an important cause of poverty as the rate of growth of population among the poverty groups is noticeably higher than that among the upper strata.
- Inflation is a factor accountable for declining real incomes of the poverty groups.
- Also people who are poor in terms of income also tend to be deprived of other privileges in a rural society.

5.10 Indian Studies on Poverty

A Planning Commission Study

By the end of the Fifth Plan in 1977, the Planning Commission defined the poverty line at the nutritional requirement of 2,400 calories per head per day for rural areas and 2,100 calories for urban areas, based on the recommendations of the Nutrition Expert Committee of 1958. It has been estimated that at the 1979-80 prices the minimum nutritional standard can be achieved with Rs. 76 per head per month in rural areas and Rs.88 in urban areas.

In rural areas the average per capita consumption for the people below the poverty line was Rs. 44.96 (at 1977-78 prices) and Rs. 53.87 for the urban poor. On this basis, there were more than 250 million rural people and 50 million urban people below the poverty line. The magnitude of poverty has not changed very much over a period of time.

Then was 51.49 per cent below the poverty line during 1972-73 and 49.13 per cent during 1977-78. Thus approximately, 50 per cent of our population has been existing below the poverty line over a long period.

(i) Ojha's Estimate of Poverty

According to P.O. Ojha, a person needs a minimum calorie intake of 2,250 per capita per day. The entire diet consisting of cereals, pulses, sugar, fruits, meat, egg etc. is taken into account. The calories in the urban areas would be 1,500 and in the rural areas 1,800. On this basis, Ojha has estimated that 184 million persons in rural areas and 6 million in the urban areas are below poverty line. On the whole, 190 million people, i.e., 44 per cent of the total population lived below the poverty line in 1960-61.

(ii) Dandekar and Rath's Study of Poverty

Dr. Dandekar and Rath have estimated the value of the diet with 2,250 calories as the desired minimum level of nutrition. For this they have suggested Rs.180 per capita per annum, for the rural population and Rs. 270 for the urban population at 1960-61 prices. In 1960-61, the total number of persons living below the poverty line was 177 million which increased to 215.5 million in 1968-69, accounting for 41 per cent of the total population.

(iii) Finance Commission Estimate of Poverty

The Seventh Finance Commission (1978) attempted to have a more inclusive concept of poverty. Accordingly, an estimate of the benefit of public expenditure has been added to private consumer expenditure norm for calculating the "augmented poverty line". Based on the 1970-71 data, the Finance Commission concluded that 225 million people in rural areas and 52 million in urban areas live below the poverty line which worked out to be 527. The proportion of people below the poverty line in the rural and urban areas is nearly the same.

Poverty versus Plenty

An abundant food production or cloth and huge buildings are no guarantee against poverty. One's command over food depends on the value of the commodity one sells or the labour power. The ability to enjoy life depends on selling this labour power at a price higher than the food and other necessities. When the economy has abundant supply of goods but no demand for labour power, poverty is the result. In an economy rich in resources, money and growth, there is poverty also which is a paradox.

There is also gradation of poverty based on different degrees of the depths of poverty. Economic growth seems to be irrelevant to the prevalence of abject poverty. The objective of India's planning is to achieve growth with social justice but poverty creates social tensions and affects growth.

During the plan period, heavy and capital goods industries develop, national income rises and increase in growth rate takes place. Still there was poverty.

5.11 Poverty Eradication and Five Year Plans

The major objective of planning in India is to raise the standard of living of the people. The Fourth Plan stated that the conditions of the common man and the weaker sections can be improved through employment and education. It recognised that the small farmers and landless labourers constituted the bulk of agricultural labour, having no productive base and depending for their livelihood on wage employment. It suggested that the weakest, backward and the most backward should receive the benefits of the economic programmes. During the 1971 elections, the *Garibi Hatao* slogan was raised, thereby highlighting the problem of poverty. Based on the Fifth Plan estimate, over 200 million people were below the poverty line. Poverty was caused by unemployment, under-employment and low resource base of producers in agriculture. The Fifth Plan launched a direct attack on the problem of unemployment, under-employment and massive low end poverty.

Population below the poverty line was 48.7 per cent in 1977-78 and it was projected to fall to 16.3 per cent by 1992-93 according to the Sixth Plan estimate. A sixth of the population would exist below the poverty line in the early 90's even with relatively high growth rates in the next 10 years. Hence there is need for a sustained re-distributive effort if poverty is to be abolished in the 90's.

5.12 Anti-poverty Programmes

Several programmes to eradicate poverty are in operation and are concerned with rural poor such as landless labourers, small and marginal farmers, rural artisans, fishermen, backward classes, Scheduled Castes and Tribes. The rural poor are the unskilled, without regular fulltime jobs and with no assets. Several programmes are intended to raise income, provide employment, education, better health facilities, family welfare, housing, water supply, sanitation etc.

(i) National Rural Employment Programme (NREP)

This was started in 1977 under the name of the Food for Work Programme, utilising the foodgrains stock and converting them into productive assets in the form of construction of major, medium and minor works, forestry works, rural roads, flood projection, community centres, deepening of tanks, reservoirs etc.

(ii) Integrated Rural Development Programme (IRDP)

The aim of the programme is to generate additional employment and raise the level of income of the poor. The family is adopted as the basic unit which is helped to undertake productive investment. The programme aims at helping 3,000 families per block covering 75 million people amounting to 13 per cent of the rural population. The Sixth Plan has envisaged a total investment of Rs. 1,500 crores supplemented by an investment of Rs. 3,000 crores for various institutions. The programme is expected to generate Rs. 3,000 crores in income each year lifting nearly 11 per cent (12 million households) of the rural population above the poverty line.

5.13 Conclusion

The challenge facing India today is how to get out of this vicious circle of increasing population and continuing poverty and hunger among large masses of the people. Nearly 75 per cent of the poor live and work in rural areas. There is no readymade solution even from the point of view of technological adaptation and innovation. Certain basic changes in attitudes and social objectives are also crucial. Mahatma Gandhi perceived the need for orientation of improved technology, production and fulfilment by the masses and adaptation as a means of balanced growth enhancing human dignity and ensuring social justice. The nation should make a solemn pledge to end poverty and hunger by the end of this century through well-planned action programmes. The 'Manifesto Against Hunger' signed by 52 Nobel laureates in 1981, states: "We must refute the false idea of reality that accepts as inevitable what is in fact a result of present politics, in other words, organised chaos." "Each and everyone of us must support measures to save the living." If only people are told what is happening, then the third world's dark future, which now seems to be threatening everyone in it, may be changed, but only if we take action. "Now is the time to act, now is the time to create, now is the time for us to live in a way that will give life to others."

POPULATION PROBLEMS AND EDUCATION

6.01 Introduction

The prosperity of a nation depends ultimately on two main factors, ecology and the human resource development process

In spite of the best natural resources, a nation cannot progress if the human resources lack the ability and strength to make an optimum use of the available resources. HRD is an essential element in the development and process of society.

6.02 Theories of Population

Modern theories of population start with Malthus who wrote his "Essay on Population" in 1798. According to his theory, there is a tendency for population in every country to increase faster than the means of subsistence, i.e., when the food production increases in arithmetic progression, population increases in geometric progression. Besides illiteracy, undernutrition and malnutrition have emerged as the two major causes of the unhealthy development of human resources. Increased effort should be made to combat this through education.

Optimum Theory of Population

This theory is of recent origin and states that at any given time or under any given conditions, other things being equal, there is, what may be called a point of maximum returns, attained when the population is so exactly fitted to the circumstances, that returns would be less, if it were either less or more than it is. This population is called the optimum population. The optimum varies from time to time as conditions determining production vary.

6.03 Population as a World Problem

The problem of human population has been drawing serious attention due to mainly two reasons. Firstly, there is deep concern among the scientists about the very survival of the human species, if the population continues to grow at the present rate. They believe that the natural resources are limited and at the present rate of consumption, many of the resources will be exhausted before long, thus endangering the very existence of human beings. Whether the technological advances will help solve the problem of food and depleting resources without detriment to the environment and human freedom is still a matter of debate.

The second concern is for the improvement of the quality of life of humans all over the world. The quality of life is primarily based on the availability, in quantity and quality of various resources such as food, fresh water, fresh air, energy, space etc. as well as adequate provision of facilities for education, employment, health services, security, recreation, creative development etc. If the population and the rate of consumption of different resources continue growing at the present rate, perhaps the quality of life will go on deteriorating instead of improving for developing countries such as India which are already facing a crisis.

The growth of population has become one of the most fundamental of the human problems today all over the world. Due to this pressure of increasing population, most countries in the world are confronted with the problem of food supply and adequate provisions for the education and health of the people. This has put a limit on the pace of improvements in the standard of living and the quality of human life. In order to have a better quality of life, there is greater demand for more schools, better education, better health facilities, more transport and housing facilities, and more employment opportunities. Thus the economy of a developing country has to face additional pressures by the ever increasing population. Migration of people to the cities in search of jobs, has added to the problem of unemployment increase in crime, violence and other anti-social activities. The risks to the improvement of the quality of life involved in the problems arising out of the growth of population are of such magnitude that even the slightest delay makes them more complicated and difficult to be solved successfully.

6.04 Growth of Population

The rate of growth of population in the world today is about 2 per cent.

If this rate continues, the population on the planet by the end of this century will be about 7 billion. Ehrlich in his book *The Population Bomb* warns that if the growth continues at the present rate for 900 years, there would be 60 million billion people. This would be about 100 persons for each square yard of the earth's surface, land and sea. The British physicist, J.H. Fremlin, guessed that such a multitude might be housed in a continuous 2,000 storey building, covering the entire planet. The space which would be left, after allowing for equipment etc. would be 3 or 4 yards of floor space for each person. Perhaps he could travel only within a circle of a few hundred yards radius on any floor. But Robert G. Frank feels that "Growth whether of size or number is a determinate process, self limiting, otherwise it exceeds the capacity of organisation and becomes pathological."

There is, however, no doubt that population growth will present serious consequences for any country in the world, especially those which are economically less developed and endowed with fewer natural resources. The higher the rate of increase of population, the larger the efforts needed to raise the per capita living standard. Considering the overall shortage of land, capital and natural resources relative to the population an effective reduction in the rate of population growth seems indispensable for the increase in the per capita income and the quality of life of the people.

World Population Trends

By 1970, the world population grew to 3.6 billion. We will be adding about 500 million people in about 6 years' time. About 3,42,000 babies are born each day in the world and about 1,35,000 die leaving a net increase of 2,07,000. In India 55,600 babies are born every day and 2,300 die.

Rate of Population Growth in Different Countries

The following table shows that the rate of population increase is higher in the developing regions of the world. Asia, Latin America and Africa have an annual increase of more than 2 per cent and these are the areas which face the basic problems of providing adequate food, education, health facilities and welfare services.

Land which was sparsely populated at one time is now overcrowded and densely populated. The world population mark is expected to cross 6 billion by the end of the century.

Growth of World Population

Year	Number of years	Billions
1850	1,00,000	1
1925	75	2
1960	35	3
1980	20	4
1990	10	5
2000	10	6 & 7

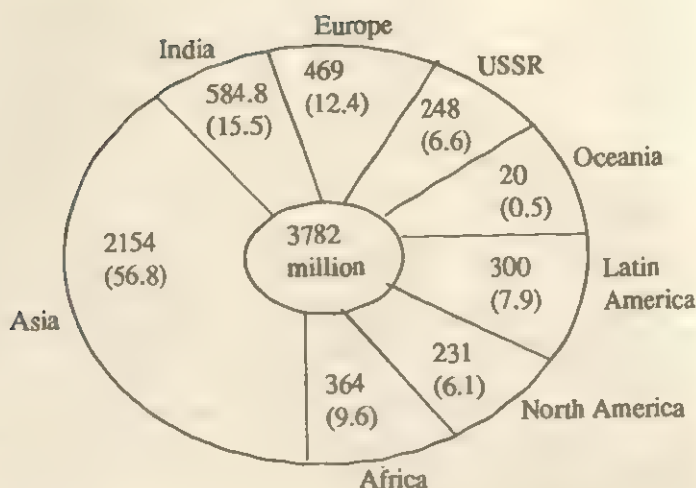
Source: Population Reference Bureau, Inc., *Population Bulletin*, XVIII, 1.

The average mortality rate of the world population is about 13 per 1,000 people, which is less than half the average birth rate. However, there are wide variations in the general death rate, from country to country. In the developed country, the death rates are below 10 whereas in the developing countries it is as high as 30 to 35. The annual birth rate in the developing regions of the world is very high as compared to the developed regions. Asia, Latin America and Africa have average birth rates of 37, 38 and 47 respectively. The birth rates are rather low in Europe, North America, and USSR being 16, 17 and 17.4 respectively. In the developed countries the drop in the mortality rates were accompanied by drop in birth rates but in the case of developing countries the drop in mortality rate was abrupt but the birth rate remained almost the same. This has resulted in an unprecedented increase in the population.

6.05 World Population Distribution

The population is not evenly distributed around the world. More than half of the world population lives in Asia. India has about 15.5 per cent, of the world's population which is more than the total population of Europe or equal to the combined population of North America (Canada and the USA) and Africa. The developed regions of the world, i.e., Europe, North America, USSR and Oceania have only 25.6 per cent of the total world population, the remaining being distributed in the developing parts of the world.

The various factors that affect the distribution of population are physical and natural, including climate, water, terrain, soil and minerals, cultural, embodying social attitudes, stage of economic development, and political organisation, and demographic involving differential birth and death rates and migration.



Distribution of population in different regions of the world (1972)

Not only is the population unevenly distributed around the world, but it is also unevenly distributed within each country. Due to industrialisation a lot of people migrate to industrial centres and urban areas. This trend of migration is very obvious in developing countries. At present less than 25 per cent of the population in the developing countries live in rural areas.

6.06 Non-productive Population in Developing Countries

About three-fourth's of the world population live in the developing countries. Developing countries, i.e., Asia, Africa and Latin America have more than 40 per cent of their population under 15 years and less than 5 per cent above the age of 64, whereas in the case of developed countries less than 30 per cent of the population is below the age of 15 but have a higher proportion of people above 64 years. Both are non-productive groups and are largely dependant on society for their food, housing, education, medical facilities etc.

The first and foremost priority of the developing countries is to develop economically but their sole avenue to achieve this goal is through the new generation, by instilling in them new skills and new ideas. This entails a huge investment on the younger generation which

constitutes a great obstacle for these countries with their increasing population.

Due to the high birth and low death rate, there are more children in the developing countries. Thus the enormous growth rate, uneven distribution of population and the high proportion of non-productive population have a crippling effect on the economic development and standard of living in developing countries.

6.07 Factors of Population Growth

In spite of the efforts of the Government of India to reduce the birth rate it has remained almost the same. On the other hand, the rate of growth has been increasing as a result of decline in the rate of mortality.

Population Growth in India since 1881

<i>Year</i>	<i>In millions</i>	<i>Rate of annual increase</i>
1881	250	-
1891	279	1.16
1901	284	0.16
1911	303	0.65
1921	305	0.09
1931	338	1.02
1941	349	1.41
1951	315	-
1961	357	1.26
1971	437	1.89

There is a growing pressure of population on the means of subsistence. The causes of high birth rate are generally attributed to three factors, viz., (1) Environmental or climatic and physical, (2) Economic, and (3) Socio-religious outlook of the people.

In tropical countries where puberty is early, marriages also take place early. Also people of less means tend to have larger families than the well-to-do. Where there is no stake in life, the arrival of an additional child is a source of additional income, as the child may be sent to work at an early age to supplement the meagre resources of the family. Poverty is usually associated with lack of education, the absence of prudential considerations and a consequent attitude of irresponsibility in relation to marriage and procreation. The socio-religious attitude also influence birth rate. In India, marriage is universal and sacramental and is considered to be obligatory for all. A

large family is an indication of the blessings of the Gods. Barrenness is regarded as a terrible punishment for sins committed in previous births. Not only marriage is obligatory but early marriage before 15 years was preferred. The custom and institution of child marriage was responsible for the birth rate. Though the Child Marriage Restraint Act was passed in 1929, many marriages are contracted in contravention of the law.

The joint family system also encourages early marriage and more children and offer motivations for having children.

Why do people want children? What are the motivation of people for parenthood? Robin and Greene (1968) classify motivations for parenthood under major categories.

Altruistic

This includes unselfish motivation of parenthood, i.e., simply affection for children, concern for them, and the need to express nurturance in relation to them.

Fatalistic or Pre-destination

This expresses the notion that human beings are brought into this world to procreate and perpetuate the species and it is in "the order of things" to bear children. It is the pre-ordained part of fate and human destiny.

Narcissistic

This refers to the expectation that the child will reflect glory upon the parents, prove its masculinity or femininity and generally prove its physical, biological and psychological adequacy.

Instrumental

That the child has utility, is to be used as a means to an end. He is instrumental in the sense that he is expected to be employed, as a vehicle in the achievement of specific parental goals not listed under the narcissistic category.

It appears that most parents in India would fit into Fatalistic and Instrumental categories. Many Indian parents feel that children are gifts of God and that they (especially sons) will help them economically and otherwise in their old age.

Factors which Favour Higher Fertility in India

The various socio-economic and physical factors that encourage higher fertility in India are:

- a. Universal Marriage
- b. Early Marriage
- c. Higher Family Norm
- d. Preference for Sons
- e. Low Economic Status
- f. Illiteracy, especially of Girls
- g. Higher Infant Mortality
- h. Occupation (agrarian society)
- i. Lower Level of Urbanisation
- j. Cultural Resistance to Change
- k. Other Factors

In India, 70 per cent of the girls aged 15-19 years are married as against 5 per cent in the United States. In the age group of 20-24 years, almost all girls are married. The family size norm seems to be three children for nearly all socio-economic groups. Three children were regarded as ideal for the average Indian family, with two boys and one girl preferably.

Distribution of Women by the Number of Children

No. of Children	Percentage of Women
0	18.5
1	15.5
2	15.0
3	14.1
4	12.4
5 and above	24.5

Source: Family Planning in India-Programme Information, 1969-70.

In a survey by Sarma and Jain (1973) it was found that one-fifth of the women have a fatalistic view about the number of children, a family should comprise. They either 'never have thought about it or leave this decision to the will of God.' One-half of the women consider 3 or 4 children as ideal.

Preference for Sons

In India, there is a strong preference for sons over daughters. It is recognised that, in the Hindu way of life, the importance of a son for the performance of funeral rites is so great that it is conceivable that the risks of family planning will be undertaken by those who do not have one or two sons. The All India Family Planning Survey (1970)

conducted on about 26,000 couples revealed that about 80 per cent of the couples believe that one must have a son mainly to carry on the line and to support the family, 70 per cent of Indian women expressed their desire to have 2 or more sons. Only one-fourth expressed their desire to have only one son, whereas one-third wanted to have 3 or more sons. A married woman who is barren is considered an inauspicious person in all religious and ceremonial functions. One male child is considered a must for economical and spiritual reasons. Some religious rites after the death of the parents can be performed only by the male child. The place and salvation of the souls of the dead parents would depend on the proper and continuous performance of religious rites by the male child. In India, childless parents are the object of pity and compassion. Also daughters are considered an economic burden and are married off as soon as possible.

Low Economic Status

The average number of children born to the couple on the low economic level (20-40 years) is higher than the high economic level. The decreasing trend of fertility is from 'low' to 'middle' and 'middle' to 'high'. The adoption of family limitation practices even under the incentive programme, is likely to be received more successfully in high income group than in the low income group.

In a joint family system as in India and an extended family as in China, the new born baby does not create any economic burden on the family, nor does it result in the loss of freedom of the parents as he is looked after by the grandmother, the aunt and other members of the family. This is true of rural communities in which a child at the age of 6 or 7 years becomes a member of the labour force on the farm or starts helping the parents in their household jobs and other occupationally related works.

Illiteracy

Education has potentially a negative influence on the reproductive rate. Firstly, because education develops opportunities which conflict with child bearing and rearing, and secondly, because of the change in values or knowledge of women. According to the data from the Indianapolis survey, education and successful family planning were positively correlated. An educated woman has a better understanding of the implications—economic, health, etc., of having more children. Differential analysis in many countries have shown increased adoption

of family planning practices and consequently decreased family size among people of higher educational levels. The influence of traditional values seems to be weakening with the advancement in education. The lack of education of girls is without doubt a major factor in keeping up a large family norm. If the girls are sent to school, their marriage age will be automatically raised.

High Infant Mortality

Most of the studies indicate that there is a positive correlation between infant mortality and fertility, for decline in mortality affects the economic cost of rearing a child. Further, when a mother is breast-feeding her child, her chances of conceiving is reduced.

Occupation

In India about 70 per cent of the population is engaged in agriculture. Rele (1967) reports that people in agricultural occupations have a higher fertility than those in non-agricultural occupations in class I (higher caste). The fertility of those with higher status and education such as village officials, teachers etc. is lower than agriculturists. Chester Alexander (1958) found that there is a positive correlation between the birth rates and women engaged in agriculture whereas it is negative for the women working in industries. In other words where industry exists birth rates decline, resulting in reduced infant rates and increase in longevity.

Lower Urbanisation

In spite of the increasing trend towards industrialisation only about 20 per cent of the population in India is urban. Some studies have shown that the fertility rate in urban areas is lower than that in rural areas. Ghose (1956) showed that for the period 1941-50, the average number of live births per 1,000 married women, ages 15-50, was 198 in West Bengal and 134 for 1,000 married women in the same age category in Calcutta. Another study by Davis showed that in the decade between 1921 and 1941, the three cities of Bombay, Calcutta and Madras had an average of 199 live births per 1,000 women in the age group 15-39, while the rural areas of the states represented by these three cities reported an average of 154 live births per 1,000 females in the same group.

The lower birth rate in urban areas may be due to the increase in population density. There is an inverse correlation between the density

and birth rate. The birth rate falls as the density increases or, as the pressure on land grows the birth rate falls, resulting in the fall of infant mortality rate and longer life span. This relationship was established on the basis of about half the population of the world from 37 countries (Alexander 1958).

Cultural Resistance to Change

India is a traditional and conservative society and people prefer to stick to old values, rather than take a risk in a change. This cultural apathy to change is probably one of the main reasons for the failure of the family planning programmes. There are five stages according to Rogers (1962) in the process of adopting a change They are :

1. The awareness stage where the individual gets information through chance and mass media but is not yet motivated to change.
2. Interest stage where the individual gets psychologically involved and actively participates in the innovation and tries to seek more information.
3. Evaluation stage where the individual assesses the information, its advantages and disadvantages, fears, hopes etc.
4. Trial stage where the individual explores, experiments and adopts the innovation in a limited way to convince oneself of the usefulness or appropriateness of the innovation.
5. Adoption stage where finally the individual decides to adopt the innovation and continues to do so in future but one can discontinue using adoption at any stage or time based on the experience and availability of new information.

In this process of change, most of the people in India are at the first stage and lack of appropriate education is of course one of the major factors for this state of affairs but cultural indifference to any kind of change is probably the crux of the problem.

Other Factors

Other factors such as diet and climate have also been suggested to affect fertility. Matthew (1966) reports that the concentration of a large part of the world's population in regions where rice is the staple diet has made people associate this diet with the high rate of fertility and growth of population. The relationship between diet and fertility is, however, not very definite and is based on mere speculation.

The other kind of relationship has been suggested between season and fertility which is also as weak as between food and fertility.

Population and Socio-economic Development

Population growth nullifies all efforts for the improvement of the quality of life of the people, especially in the developing countries. The quality of life of a country is affected by the increase in population in relation to the natural resources and the level of technological development. The quality of life is a very complex concept as it involves the satisfaction of the emotional needs and social aspirations of the community as well as the society's ability to meet the basic needs of food, energy, space, housing etc. by itself. The standard of living can be judged from expenditures on food, housing, recreation, religion and other activities allotted in a budget. If the family budget on food expenditure is very high, as in the case of an average Indian family, very little money is left to provide other necessities of life, thus lowering the standard of living. The basic criteria that are generally used to compare the quality of life can be categorised, as follows:

1. The quality and quantity of the basic physical needs of man such as food, fresh water, housing, clothing etc.
2. The quality and quantity of the social and cultural needs of man, such as educational and employment opportunities, health and medical facilities, security and conditions of work, transportation, human freedom, recreation and entertainment, opportunities for creative development etc.

6.08 Population Increase and Quality of Life

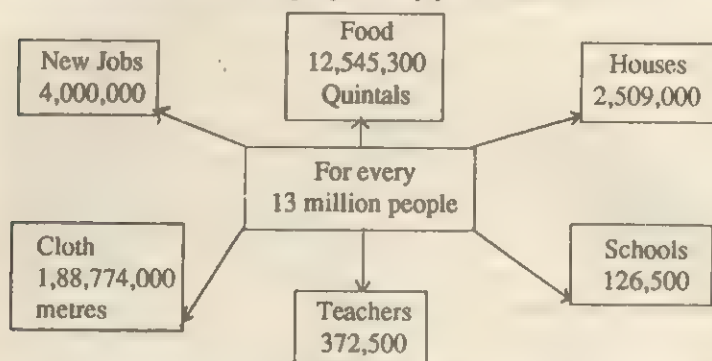
Increase in population can affect the quality of life in terms of the availability of food per capita, GNP and per capita income, educational and employment opportunities, facilities for health and sanitation, housing etc.

As the present rate of population increases, to meet the increasing demands for food from her own resources or from imports, it seems quite probable that most people will suffer from malnutrition, hunger and disease. The law of diminishing returns is central to the problem of population increase. Food supply should increase faster than the population, for industrialisation can provide only temporary relief.

Population of Socio-Economic Development

A major part of the revenue of many countries is spent in providing food, health and educational facilities and other services to the

increasing population which could otherwise have been used to raise their standard of living. The following figure shows the different needs for an additional 13 million people every year in India.



Source: Government of India, *Population Problem of India*, New Delhi, Dept of Family Planning, Ministry of Health and Family Planning, 1967.

Population and Literacy

The increasing population, especially in the developing countries, affect the effort for the education of the people. Educational problems are not limited to the children only. More than one-third of all adults in the world are illiterates. Though there is a slight decline in the rate of illiteracy among adults, the absolute number of illiterates has been increasing from year to year because of population increase. In spite of the increase in the number of schools after independence, India has not been able to provide education for all children in the age group 6-17. This is due to the increase in the number of children in the school age group during the last few decades.

Population and Employment Opportunities

Rapid population growth increases the number of people in working age group, thus widening the gap between the supply and the demand. This leads to the migration of the people from rural areas to the cities in search of jobs, intensifying the problem of unemployment. In all countries, there is an increasing trends towards unemployment, in spite of increasing opportunities for employment in industries and other development projects. The number of unemployed in India have increased about three times and the problem of educated unemployed is even more serious.

Population and Health Services

Another indicator of the standard of living is the provision of health facilities. The availability of health services is directly linked to the size of population as well as on her economic development. The countries with higher population size and growth rate have more population per hospital bed, ranging between 83 and 125. The population per physician is also high in developing countries, approximately 4,610 per physician in 1967. At the present rate of growth of population, economic conditions and the facilities for training of physicians in India, it seems very likely that the health services will go on deteriorating, instead of improving. The chances of improving the situation are thus very remote unless population growth is drastically reduced immediately.

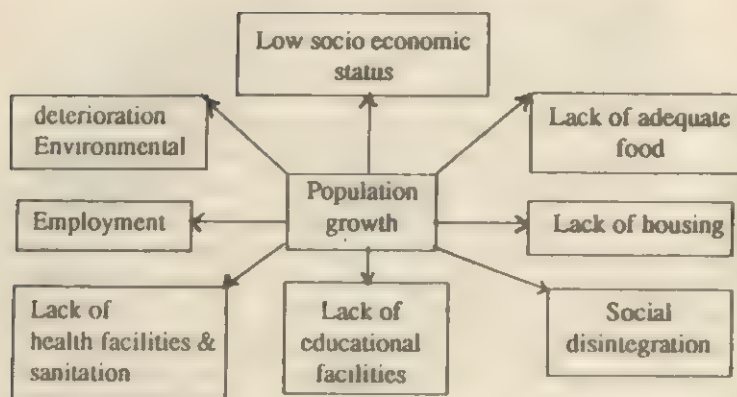
Population and Housing

In spite of the Indian Government's efforts to provide housing facilities under different schemes, the problem is becoming more and more serious due to the increasing population. The increasing slums in the outskirts of big cities are posing an even more serious problem. Most of the families (about 70%) in urban areas live in one-room tenements. The average number of rooms per household is 1.93 and the average number of persons per room is 2.61. The situation is more or less the same in rural areas. The situation is worse in big metropolitan cities. For the present rate of population increase, i.e., 17 million annually, the additional requirement for housing per year is about 2.5 million houses.

Population Recreation Articles

In addition to literacy, health facilities, employment and per capita income, articles of recreation are also included as one of the determinants of the standard of life, which include radio and television. The number of radios and televisions per 1,000 persons is much higher in the developed countries, as compared to the developing countries. In India, there 22 radios and 0.05 TV sets per 1,000 in 1970, whereas they were 1,442 and 412 respectively in the United States. The availability of the articles of recreation may be linked to the economic status of the people which in turn is related to the size or growth of population. The following diagram indicates clearly the effects of population increase on the quality of life at the macro level.

It is quite evident that the increase in population is one of the major factors of the deteriorating quality of life, especially in the developing countries. The population explosion not only affects per capita



availability of food, clothing and shelter but also leads to problems of social concern such as unemployment, environmental deterioration, social disintegration and lack of education, health and sanitary facilities.

Family Size and Individual Growth

Persistent high fertility not only affects the economy of the country but also affects the health of the mother and her child. As a result of repeated pregnancies and prolonged lactation, majority of women suffer from nutritional deficiencies, in addition to maternal mortality risks. Wary (1971) points out that both physical and mental ill health of parent increased with family size, more markedly in mothers. Wyon and Gordon (1962) showed that the mortality rate tends to increase with the family size.

Infant Mortality Rate per 1000 Live Births in India

Age of mother	Infant mortality rate
30-35	105 - 125
40-45	200

Source Government of India, *Natural Sample Survey*, 16, New Delhi, Bureau of Census and Statistics, 1968.

Some relationships have been established between family size and the physical growth of children. In a study of over 5,000 children in UK, it was found that there is a significant relationship between the height and weight of children (from 4 1/2 years onwards) and the family size. The children in the lower socio-economic status with larger families are

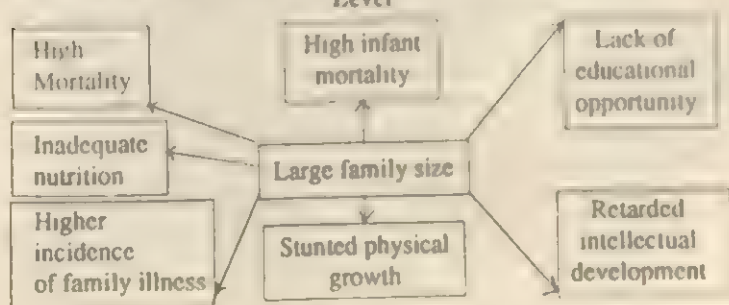
the worst affected. It was also shown that the growth and physical development of girls are affected by family size, irrespective of the socio-economic status of the family. Girls from small families tend to reach physical maturity earlier than those from larger families.

Wray (1971) has revealed that there is a relationship between the size of the family and the intellectual development of the child. Reed & Reed (1964) in their extensive study of mental retardation in Minnesota during 1910-1960 on 1,016 families showed that the mean I.Q. of children decreases with family size. Scott (1960) in his study of over 4,000 children aged 10-11 in London found out that both I.Q. and physical growth decreased as family size increased. One of the largest studies of 70,000 school children done by the Scottish Council for Educational Research in 1947, found a high negative correlation between scores in the intelligence test and the number of children in the family.

A few studies have found some relationship between crowding especially in urban areas and the incidence of crime and other social problems. Crowding in urban areas produces a number of problems such as water shortage, housing problem, lack of sanitation, education, and medical facilities. These are aided by violent crimes, high incidence of divorce, child abuse, suicide and tensions, anxieties and mental breakdown. Diseases associated with stress, tension and worry such as ulcers, coronary diseases, high blood pressure are more prevalent in urban areas than in rural areas.

Ashley Montagu (1969) has pictured the effects of population pressure in human beings, specially on the human psyche, specially the damage to the human spirit, disabling millions of people from the ability to perceive and to feel as human beings.

Effects of Larger Family Size on the Quality of Life at the Micro-Level



Two major problems such as the question of the survival for a majority of the population, especially in the developing countries and the question of raising the standard of living need immediate attention. Natural resources are limited and at the present rate of population explosion and the rate of consumption, resources will be exhausted threatening the very existence of the human beings.

Population and Environment

All living things need food to exist and to grow healthy and strong. Also, energy is needed to maintain the body processes, which we get from plants in the form of carbohydrates, fats and protein. The energy of the plants originate from the sun which is the main source of energy. The use of energy by human beings is related to the quality of life. Industrialised countries have a better quality of life and use more energy than the developing countries.

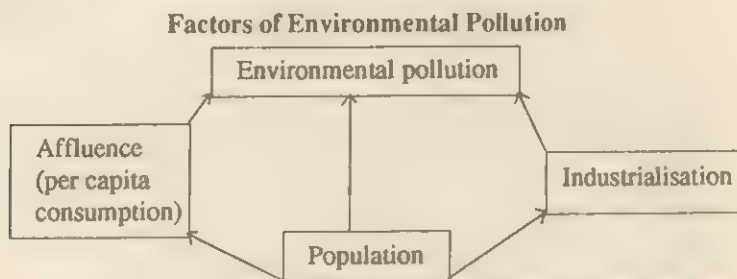
Oxygen is an important requirement of all living things. Air is mainly composed of oxygen, nitrogen and carbon dioxide in a definite proportion. If the proportion changes, the air is said to be polluted. Polluted air causes a number of diseases and may be even fatal when the pollution level is high.

In addition to food, water, air and energy, all living things need space to live. The distribution of individuals in space (on land) is known as 'density'. The amount of space needed by different individuals depends on many factors. Among the different methods of limiting a population, the necessity of breeding space is the most common. Distribution of available space among breeding couples or groups, mean that the number of offsprings will remain below the carrying capacity of the environment.

The ecosystem is a natural unit of living and non-living things which remain in a balanced state, until they are disturbed by humans or some natural calamity. By the law of nature the number of individuals of different species tend to remain relatively constant over a longer period of time. This balance is maintained by three kinds of inter-relationships—food, reproduction and protection. Human beings are a part of the natural system but only culturally are they different. If we fail to live in balance with the natural system, the law of nature will apply as in the case of animals, i.e., death due to starvation, disease etc.

Population and Pollution

Barnett (1970) indicated a direct relationship between population size and pollution. Vltch (1973) points out that "Even in the light of the most optimistic of sociological and technological consideration, there is no way to cancel the number of people out of the pollution education." Rapid consumption of natural resources and waste disposal by the growing population put a greater stress on the environment. The pollution increases with industrialisation as well as with the increase in population.



In order to increase food production to feed more mouths, we need more water for irrigation, more fertilisers, more pesticides, more fuel, all of which have a deleterious effect on our environment.

Depletion of ground water often creates the problem of salinisation of soil, making it unfit for cultivation. The building of dams, canals etc. for irrigation purposes creates its own problems in addition to defacing the landscape. Fertilisers used for agricultural production are washed away into streams, rivers and lakes leading to 'eutrophication' and mass death of animal life. Nitrates in fertilisers change into nitrites in the human intestinal tract which is a serious poison. Also, the inorganic nitrogen fertilisers lead to a loss of humus from the soil resulting in the breakdown of the nitrogen cycle. This may expose the human beings to dangerous germs from the soil.

The industrial waste, sewage and other solid wastes are thrown into the rivers. When population increases, the waste degrading ability of the river becomes overstrained and natural purification does not occur.

Effects of Air Pollution

Air pollution affects our climate. The earth receives energy from the sun in the form of short wavelength radiations. A major part of this energy is reflected back into the atmosphere and some of it is absorbed by

materials on the surface of the earth. This warmed surface in turn radiates energy into the atmosphere, but in the form of longwave heat radiations the water vapour and carbon dioxide present in the atmosphere absorb these radiations, are warmed and in turn re-radiate it back towards the surface of the earth. The overall result is warming up of the atmosphere near the surface of the earth. This is known as the "Greenhouse Effect". It is because of this Greenhouse Effect that the average temperature of the earth's surface is about 60° F, otherwise it should be about -7°F or -22°C.

The increased pollution in the air affects the heat balance of the earth. The increased carbon dioxide in the atmosphere adds to the Greenhouse effect. More heat is absorbed and reflected back towards the earth's surface, thereby raising the average temperature of the earth's surface. The carbon dioxide content in the atmosphere has been increasing at a rate of about 0.2 per cent per year. Changes that have been predicted as a result of this are cataclysmic, such as slippage of the Antarctic icecap causing tidal waves which would wipe out most humanity or the sudden onset of a new ice age. But the immediate effect of temperature change would be on the weather which may prove harmful to living things.

The effects of air pollution may be acute or chronic. The acute effects of carbon monoxide may cause slowed perception, unconsciousness and death and the chronic effects are associated with heart disease. Also it combines with the haemoglobin in the blood which has a poisoning effect. Some pollutants such as fluorides, hydrogen sulphides and arsenics are actually toxic that lead to the irritation of the throat and lung, cough, lesion of the respiratory tract and even death.

The ionized radiations can cause physiological as well as genetic defects. The man-produced ionizing radiations include X-rays, coloured TV sets, electron microscopes and nuclear tests and radiations from the products of nuclear fission or the radio isotopes. The effects of radiation can range from illness to death depending on the doses of radiations. Cancer of skin, bone, lungs, thyroid and leukemia can be induced by radiation. Some radioisotopes show a tendency to become concentrated within the body. Thus environmental pollution caused by the increase in population can affect our health and the situation can at any time go out of our hands if the trend of population increase is not checked soon.

6.09 Measures of Population Control

The recent increase in the population and pressure exercised on the limited resources of the country has brought to the forefront the urgency of the problem of family planning and population control. The size and the quality of the country's population are of utmost importance to national welfare and planning. In order to solve the problem of population, the only method available to control the population is family planning. The main appeal for family planning is based on the consideration of the health of the mother and better care and upbringing of children, thus contributing to the health and welfare of the family. The first problem is to create motivation in favour of family planning for a smaller family in the minds of the people and then to provide advice and services based on acceptable, efficient, harmless and economic methods. Family planning advice and service were made an integral part of the services in hospitals and health centres. The programme is guided by the central and state family planning boards. All states have set up special units for family planning work. The family planning education has been interwoven with other constructive activities, especially the work of the primary health centres, community development blocks and voluntary organisations.

Besides the propagation of family planning methods, emphasis is to be laid on moral and psychological elements, on restraint, education of women, raising the age of marriage and opening up new employment opportunities for women. Mahatma Gandhi was against the artificial family planning methods and laid emphasis only on moral restraint. However, the method of moral restraint does not seem to be feasible.

Recent researches reveal that approximately 40 per cent of the currently married females, are willing to take family planning advice but in spite of this favourable attitude, the use of contraceptives is very low (Agarwala, 1966). At present, not more than 2 per cent among the currently married females in the reproductive age groups in rural areas use family planning methods. Thus the need is to encourage the family planning methods in large numbers. However, the control of population is not a matter for executive action or legislation but a matter that entirely lies within the choice of individual parents who need to be educated into a sense of their social responsibilities. This means that population problem is related to the broader social policy, i.e., economic development. Thus we will have to fight on all fronts—social, religious, economic and political.

6.10 Need for Population Education

We saw that family planning programmes alone cannot solve the problem of population increase. It is time to recognise the possible role of education in the schools and colleges to bring about the desired change in the value system of the people. For this, an appropriate education for children and youth in schools and the community at large is required. About 45 per cent of the population in the developing countries are under 15 years who will constitute the major portion of adult population in the next few decades. Their reproduction behaviour and attitude towards family size will be very important to control population growth. They should be made aware of the problems of population pressures on the individual, the society, the nation and the world at large. They should be made to develop attitudes, understandings and modes of thinking to enable them to make the correct decision regarding family size and family planning. Population education thus serves as a motivational instrument that would inject in the young the desire to adopt family planning as a way of life. Population education should be integrated with the education system of the country. It should be an important component of the whole educational system, similar to social studies, science, mathematics, etc. As population relates to the study of man in relation to the environment, it needs to be developed into a separate discipline in itself.

Children must be educated at an early age about the implications of population growth. It must be imprinted in their minds, that prosperity and future happiness lies in limiting the size of the family. Education is the only means to change the attitude of individuals and help them to make rational decisions.

Population Education—Definition

Population education is generally misunderstood for family planning or sex education. It is neither birth control nor family planning education, although information concerning both may be included in the contents of the programme. It is not a programme designed to persuade people to have a small family but it aims at making the individual aware of the processes and consequences of population growth on the standard of living and the environment. Population education may be defined as a process by which the students investigate and expose the interactions between population and its environment, characteristics of population; the nature and meaning of the processes, causes and controls of

population change and the implications and consequences of the population increase in the biological, ecological and social systems at the local, national and international levels.

Thus population education is the study of human population in relation to his environment with a view to improving his quality of life without adversely affecting the environment.

Viederman (1974) defines population education as "an educational process which assists persons (a) to learn the probable causes and consequences of population phenomena for themselves and their communities including the world, (b) to define for themselves and their communities the nature of the problems associated with population processes and characteristics, and (c) to assess the possible effective means by which the society as a whole and he as an individual can respond to and influence these processes in order to enhance the quality of life now and in the future."

Inclusion of Population Education in the Curriculum

There are two schools of thought regarding the introduction of population education in the school curriculum, namely, (i) infusion or integration in the existing syllabi and (ii) as a separate subject by itself, which should be made compulsory. Both the views have their merits and demerits. The National Seminar on Population education held at Bombay in August 1969 recommended that population education should be introduced into the curriculum of schools and colleges by integrating it with the content of science, social studies, health education, mathematics, language, etc. But Viederman (1970) points out that (i) the curriculum is already over loaded, (ii) the demands of traditional subjects are increasing due to knowledge explosion, and (iii) children will probably learn more if they are confronted with relevant population materials.

The argument in favour of teaching population education as a separate subject is that it may be economical for it would require relatively a few resourceful persons as compared to the approach of infusion. Both the preparation and teaching through this approach may take less time and effort as compared to the strategy of infusion. Also, when the concepts are plugged into various subjects, they may become diluted and may lose the needed articulation. Also an exhaustive study of the contents of the different subjects at different levels is needed in order to make appropriate changes or additions to incorporate population education contents.

Both the approaches have their own problems. A judicious and healthy combination of the two approaches may be best suited. Population education concepts may be integrated into the existing syllabi wherever possible and a core short term compulsory course for all may be added to the existing courses.

6.11 Population Education in India

Scientists and social scientists have opposing views regarding the approach of population education. According to scientists, the human being is a part of the biosphere and hence population education should be based on the principles applicable to other organisms of the biosphere. But social scientists view the human being as one who can manipulate the environment to suit its needs unlike the other organisms. For them population is a social issue and hence population education should be based on culture, economy, politics and human values of the community. Unlike biologists who treat population as a global issue, social scientists treat it on a local and political unit basis. As man is a social animal, both approaches are complementary to each other; hence, a compromise of both approaches should be evolved.

As a result of the "White Paper" on Educational Reconstruction of Maharashtra Government, 1968, to introduce population education into the educational system and to make the educational system "a powerful instrument of national development" a basic understanding of the dynamics of population growth and its impact on the daily lives of the people and the nation needs to be provided. The content need not include specific birth control methods or sex education.

Prof. V.K.R.V. Rao, in his inaugural address in the national seminar on population education, agreed to introduce the study of human reproduction in population education programmes in order to make the child aware of the fact that birth is not a matter of chance. For this, a child should be given a proper conception of the phenomenon of reproduction. This could be done through stages acquainting the child with the reproduction system in plants, fish, birds, animals and finally human beings. It is all a matter of presentation. According to Prof. Rao, imparting of knowledge about the system of reproduction has a definite place in population education.

6.12 Objectives of Population Education

The major objective of population education is motivational and indirect, as far as family planning is concerned. The following five

major areas were identified in the workshop on 'Population Education' held in July 1970 at Delhi to meet the overall objectives of population education. Though these areas are exclusive to any particular discipline, they are drawn from several social and biological sciences. These areas are:

1. The population growth
2. Population and economic development
3. Population and social development
4. Population and health and nutrition
5. Population and biological factors and family life.

The regional seminar on "Population and Family Life Education" held in 1970 at Bangkok also identified five major components of population education. They are:

1. Determinants of population growth
2. Demography or the population situation
3. The consequences of population growth
4. Human reproduction
5. Family planning policies and programmes.

While the first three are accepted universally as part of the population education programme, the controversy arises regarding the teaching of the last two, termed sex education. There is global confusion regarding population education and sex education, which arouses considerable opposition. By and large, human psychology and reproduction, contraception and social interaction associated with human sexuality are considered to be the major components of sex education.

Human reproduction, a chapter in Biology, can be easily incorporated in population education without arousing any controversy. Human physiology and reproduction creates an awareness that birth is not a matter of chance or the gift of God, but is a matter of crucial individual decision making and dispels many myths and superstitions. But there is considerable opposition regarding the imparting of information on sex for one school of thought feels that it might lead to sexual experimentation, unwanted pregnancies and venereal diseases.

The 'Population Dynamics' curriculum of the Bangalore Model include the following areas:

1. Birth and mortality rate and population

2. Health and population
3. Food production and population
4. Family size and population
5. Standard of living and population.

The draft syllabus of NCERT includes in addition to the non-controversial topics, matters related to reproduction in man, stages of growth, physical changes at puberty, emotional changes at adolescence, healthy sex relations etc.

Viederman (1972) has also included the topic of human reproduction in his concept of population education. He says "the purpose of a systematically developed population education programme would be that children by the end of their secondary schooling would have achieved a degree of 'population literacy'. Such literacy would include an understanding of demographic processes of the interactions between population and public policies and of the nature of human reproduction and the fact that family size can be controlled."

The All India Workshop on "Population Education" under the auspices of NCERT held at New Delhi in 1974, identified the following five major areas in the proposed syllabus for classes I-X.

1. Population dynamics
2. Population and economic development
3. Population and social development
4. Population and family life, health and nutrition
5. Population and environment.

Existing Curriculum

The status study of the present curriculum in different states in India was conducted by NCERT, New Delhi in 1971. It was found that there are several topics in all the syllabi of different states which are related to population education. But, there is no systematic attempt to teach population education as such. Topics concerning the life of people, population growth, economic problems, natural resources, prevention and cure of diseases, health problems due to over-population, study of human body, reproduction in plants and animals etc. are included in the syllabi of most of the states (classes III-VIII) as part of geography, civics, health, hygiene, general science and social studies. Only in Gujarat is human reproduction included in general science (class VIII).

Most of the branches of the Family Planning Association of India have introduced the study of population education in the schools, through the extension approach. Some universities offer courses in population problems and demography as part of courses in economics, statistics and sociology. There is no organised and systemic effort to teach population as an inter-disciplinary subject.

6.13 Conclusion

The Government of India has called for the inclusion of population education in the educational system of India, in the summary proposal for population education in the Fourth Five Year Plan itself. In order to be really effective, population education requires specially trained teachers in the new area and the availability of source materials. Though the problems of human population growth, depletion of resources and environmental population need to be tackled from different angles, education is the most important instrument in bringing about a desired change.

The purpose of teaching population education should not be to convey a particular point of view but to help to make decisions on controversial issues and problem situations. The cultural, religious and political implications should be kept in mind while discussing such issues. Family planning programmes can show good results only if the problems of lack of education of the people, problems of communication, social and religious preferences, etc. are dealt with. Though a combination of different methods of population control are needed, the most potent and effective is the education of the future parents and present adults. As to what kind of education will be most effective is still an unanswered question. The contents and approaches for such an education merit further research.

EDUCATION AND RACISM

7.01 Group Prejudices and Discrimination

Human beings have been split into warring groups on account of group prejudices and discrimination in the name of caste, class, ethnic and racial groups. One group of people cause much injustice to another and serious discriminations are made by one group against another, depriving individuals and groups their legitimate rights based on their caste, class or ethnicity. Apartheid or race prejudice is the greatest evil which threatens world peace today. Prejudice is defined as "an attitude that predisposes a person to think, perceive, feel and act in favourable or unfavourable ways toward a group or its individual members". Prejudice means prejudging without much thought and it makes a person favourable or unfavourable towards a person, a group or an issue. But discrimination is an overt expression of prejudice involving the differential treatment of individuals. Some races are discriminated and considered superior to others based on the biologically inherited physical characteristics such as the colour of the skin, eye and hair. Such prejudices are not inherited but only acquired, due to the social indoctrination of beliefs, attitudes, habits etc., in fact due to the very process of socialisation. "The young child undoubtedly starts his life without prejudice, and during pre-school years seems almost incapable of fixing hostility upon any group as a whole."

Discussed briefly in this chapter are the nature of race relations prevailing in the US, Africa, and in India and the process by which such hostilities could perhaps be overcome.

7.02 Race Relations in the United States

Nearly 12 decades have elapsed, since the Emancipation Proclamation of Abraham Lincoln. There is one group which feels that we need more time to bring about minority-majority group harmony, while another

group feels that a century is more than enough to have brought about minority-majority group accord. In recent years, a number of minority groups have become increasingly dissatisfied with conditions as they now exist. American society has been made very conscious of minority-majority tensions in the form of race riots in major cities, mass demonstrations of minority solidarity and a steady effort to kindle a new spirit of in-group pride. Alternating between moods of pessimism and optimism, between despair and dreams, America has seen the effects of the present era of "heightened expectation".

The problem of minorities rests in the hands of the majorities, who have the power to effect changes, because it is the majority who has created the circumstances under which the minorities live. Majorities will have to face a serious test when they experience "reverse racism" when the barriers between majorities and minorities break down.

Religious minorities have experienced discrimination in all ages and in many societies: the classic example being the restriction and persecution of the Jews.

Cultural nationalistic minorities likewise have been discriminated against in many societies. The U.S. has experienced wave after wave of immigration and each group was set apart in some way. Societies have adopted many methods of dealing with minorities, such as annihilation, expulsion, segregation, subordination, amalgamation and assimilation. The first four methods have created more problems than they have resolved. But the fifth method, i.e., amalgamation which involves inter-marriage and the eventual construction of a composite society has been somewhat successful. The result of assimilation has been the growth of a pluralistic society in which the minorities and the dominant groups develop a tolerance for each other's differences.

There is, however, plenty of room to move beyond the present situation in U.S.A. Centuries of ignorance and neglect have contributed to inadequate housing, education, health, family life and employment. Time has taught them to distrust others and to develop their own personalities. But it is never too late to begin to realise that the "differences" that used to keep people apart are not too big to surmount.

Race is a division of the human species on the basis of hereditary biological traits, such as the skin, colour and height. People are classified within a particular race because they share or are thought to share certain common physical characteristics. Some untrained persons

like to rely upon skin pigmentation to distinguish between various races. Colour terms such as "whites", "blacks", "reds", "browns" etc are used to denote them. But these terms are too vague to be useful for precise distinctions.

Many groups have been assigned a minority status on the basis of their religious beliefs and practices. Racial and religious differences do not exhaust the basis for minority-majority group differences. Cultural differences also abound in USA, a land of immigrants. Racial, religious and cultural "differences" are not necessarily mutually exclusive but are overlapping. The presence of one or more minorities within any society demands some sort of practical solution. Among the methods of "handling minorities" that have been tried by different societies are (1) Genocide, (2) Expulsion, (3) Segregation, (4) Subordination, (5) Amalgamation, and (6) Assimilation.

7.03 Racial Discrimination in South Africa

The very mention of the name South Africa brings to our mind the term Apartheid which means apartness. This term was coined by the South Africa's Nationalist Party to describe the legislative policy of segregation or separate development of the races. The chief architect of apartheid was the former Prime Minister Vervoed, who suggested the course that all people will be equal but separate, to solve the colour problem. South Africa has a unique racial and cultural situation with 13 distinguishable people with distinct cultures. But the 5.5 million white people made it an industrial society. In addition, there are 80,000 East Indians and 2.6 million coloured people. Unlike America where the blacks have been successfully assimilated, South Africa has been very slow in giving up the traditional ways and their unique life styles. The refusal by other whites in South Africa to accept the blacks as their equals is called apartheid.

The apartheid legislation has the following four factors which strengthen apartheid: Mixed Marriage and Immorality Acts, Population Registration Acts, Group Areas Act and Pass and Influx Laws. These acts forbade sex and marriage across the colour lines, forced them into one of the four main racial groups such as black, white, coloured or Indian, land could be legally owned only by a particular racial group, denial of admission for blacks in white schools, and identity documents for each racial group to control the movement of rural blacks to urban areas. These class and race prejudices can be eliminated only through

appropriate education focussing on the respect for the dignity of the individual, equality of opportunity, freedom, tolerance, good citizenship, fellow feeling and faith in change.

7.04 Caste System

A special and peculiar type of social stratification found in India is in the form of castes. The word 'caste' originated from the Spanish word 'casta' meaning breed, race, strain or a complex of hereditary qualities. Even in the third century, the Greek traveller Megasthenes identified the two major characteristics of the *caste system* prevailing in India such as "It is not permitted to contract marriage with a person of another caste, or to change from one profession or trade to another, nor for the same person to undertake more than one, except if he is the caste of philosophers, when permission is given on account of dignity". Some believe that the caste system originated after the arrival of Aryans in India and it was termed as 'Varna or colour' by the Indo-Aryans. People were divided into four categories such as the Brahmins, Kshatriyas, Vaisyas, and Shudras based on the type or division of labour, or professions they held, which later became the caste system. The Brahmins were mainly philosophers, poets or priests, and the Kshatriyas represented warriors or chiefs. The Vaisyas consisted of the traders or business people and other common people and finally the Sudras represented the domestic servants. But the Brahmins were considered to be superior to the other caste people.

The prevalence of the caste system in course of time lead to untouchability. It also led to stagnation as each must follow the respective caste occupation. It compels an individual to follow certain occupations irrespective of his aptitude or liking, thereby preventing optimum productivity. It is a barrier to national integration for as Dr. D.S. Ghurye has observed, "It is the spirit of class patriotism which engenders opposition to other castes and creates an unhealthy atmosphere for the growth of national consciousness". It also kills the initiative and enterprise of the people as they believe in the theory of Karma and become fatalists. It denies equal rights to all people and hence it is undemocratic. For, Section 15 of the Indian Constitution says, "The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them. No citizen shall on grounds only of religion, race, caste, sex, place of birth or any of them, be subject to any disability, liability, restriction or condition with regard to access to shops, restaurants, hotels and places

of public entertainment; or the use of wells, tanks, bathing ghats, roads, and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public.

Article 16 guarantees equality of opportunity to all citizens in matters relating to employment or appointment to any office under the state irrespective of religion, race, caste, sex, descent, place of birth, residence or any of them. Article 17 has abolished untouchability and its practice in any form is totally forbidden. Article 19 guarantees among other things that of practice of any lawful calling.

Class Systems

Two or more groups of individuals who are ranked by members of the community in socially superior or inferior positions form a class system. "A social class is the aggregate of the persons having essentially the same status in a given society". Status and prestige is the basic criterion of any social class. The once existent slavery system was abolished by the untiring efforts of the great humanitarian Abraham Lincoln. The guild system of social stratification found in South India was based upon the economic structure and the status of the profession as existed during the Middle Ages in Europe. The Industrial Revolution brought in its wake two classes such as the capitalists and the proletariat, consisting respectively of those who own the means of production and the industrial workers. In between the two classes were the middle class comprising the heterogeneous group of doctors, teachers, engineers, lawyers etc. This was further divided into the upper middle class, middle class and lower middle class. Any characteristic such as occupation, birth, wealth, race, religion, education and speech may be the basis of social ranking. Wealth and occupation are the determinants of social stratification in modern times. In societies where people can move up and down the social ladder, the society is said to have open classes. Ethnic pertains to a social group within a cultural and social system that is accorded special status on the basis of complex, often variable, traits including ancestral, religious, linguistic and physical characteristics. Eg: Hindus, Muslims and Christians based on religion, Tamilians, Bengalis, Maharashtrians etc., based on language. Ethnocentrism is the characteristic of 'in-group'. It is based on the assumption that the values, ways of life and attitudes of one's own group are superior to those of others. While ethnocentrism is an important factor in maintaining the solidarity of the group, it is a menace to the society as it causes group antagonism and hatred.

7.05 Racial Groups

The term 'race' has been used for classifying people based on certain physical characteristics such as pigmentation, colour and form of hair, and other observable differences. Racism has been defined as a 'belief that race is the primary determinant of human traits and capacities and that racial differences produce an inherent superiority of a particular race and racial prejudice or discrimination'. The sources of class or race prejudice can be classified as follows:

- Economic advantages enjoyed by the dominant group as against the deprivation of equal rights to the discriminated group, Eg. Shudras in India.
- Lack of appropriate education, attitude and value system, Eg. Communism.
- Political benefits enjoyed by the dominant group, Eg. Whites in South Africa.

7.06 Nature of Minority Groups

Human societies are not homogeneous in their population make-up, but contain groups which seem to stand out from their populations as a whole. These groups are termed as minorities. Human beings have a strong tendency to categorize everything in their environment, including each other. People throughout the world have recognised classifications based on race, religion and cultural heritage. Minority groups are not only distinguished from the rest of the society but are also discriminated against and are at a disadvantage, involving a denial of opportunity for full participation in the society's life. Discrimination against a minority is usually an out-growth of prejudice, based on the formulation of opinion on the basis of insufficient or misleading evidence. Sometimes, group loyalties become so strong that they result in a distrust for "outsiders" and foster unjust discriminatory treatment of others. This results in creating strong tensions which can disrupt the harmonious functioning of any society. It is not always the minority that suffers discrimination. Sometimes, the minority is in a position of greater power than the majority, as in the case of South Africa, the 4 million whites hold a virtual monopoly of political and economic power as against 16 million blacks.

All minorities are somehow 'different' from the dominant group either racially, religiously or culturally. The nature of racism and its effects have been progressively understood. It has been increasingly

accepted that black people are not only subject to individual discriminatory acts but are also disadvantaged as a group through indirect discrimination which operates more as a result of "institutional practices and patterns, rather than of deliberate acts by prejudiced individuals" (Bindman and Grosz, 1979). Equality for individuals cannot be achieved unless discriminatory practices are removed, which affect black people as a group. Racism has over the centuries entered deep into society, in a way comparable to the operation of sexism. And, as with sexism, systematic and sustained action is necessary to dismantle racism. It is the failure of multi-cultural policies to address the effects of racism which has led to a radical reappraisal of existing responses. In this context, concern centres not on cultural difference but on equality and justice and combating 'the central and pervasive influence of racism'. Combating racism is seen not as an additional element which must be built into 'multi cultural' approaches, but as the core from which responses to diversity must develop. Racism does not manifest itself simply in direct discriminatory acts between white and black people, it is endemic in the attitudes which pervade society. Racist ideology, and the values and beliefs which surround it, are based on the assumption that black people are inferior to white people. Such notions are deeply embedded in the procedures, practices and structures of institutions. The reluctance to take positive action, particularly in the field of social policy, became a recurrent feature of much of the subsequent responses. The attitude was that citizens were to be treated 'equally before the law', but the corollary was that equal treatment meant the same treatment and that no further action was necessary. In effect, immigrants were firmly categorised as strangers facing problems, not as citizens suffering any disadvantage or being exposed to racial discrimination. The principle of civil rights before the law was not considered to extend to the notion that the law might also guarantee social rights through legislation against discrimination.

The findings of a research project carried out by the Political and Economic Planners between 1972 and 1975 (Smith 1977) demonstrated beyond doubt the existence of discrimination by race in many areas of life, especially in employment and housing. That, blacks were found to be more vulnerable to unemployment than whites; they were concentrated within lower job levels in a way which could not be explained by lower academic or job qualifications; and within broad categories of jobs they had lower earnings than the whites, particularly

at the higher end of the job scale. An analysis of the patterns of employment suggested that discrimination was an important factor in the disadvantaged employment position of blacks and case studies confirmed this, in controlled experiments of job applications for white-collar jobs. Asian and West Indian applicants faced discrimination in 30% of cases and in application for unskilled jobs 46% of cases.

Comparable patterns of discrimination were shown to operate in housing owner occupation. The property involved was of lower quality, unlikely to constitute a means of transferring wealth between generations. All the measures of housing quality used in the survey showed ethnic minorities to be much worse housed than whites. Black private tenants were paying much higher rents than white tenants and ethnic minorities were under-represented in council housing. "Although there are specific issues which arise from immigration and from differences in cultural background", to a large extent "colour problem" is the problem of white racism (Rutter & Madge, 1976)

7.07 Racial Attacks

In an extreme form, racial prejudice is also manifest in direct racial attacks. Racial violence against black people is little documented and/or receives little coverage in the national and local media. But it is widespread.

When looked at in terms of the documented extent or effect of racism, Government incursions into race relations legislation appear belated, hesitant or largely ineffectual. The emphasis remained firmly on caution, conciliation and persuasion. The motivating concern of the acts of legislation was the avoidance of racial strife rather than the provision of effective legal redress for citizens suffering from discrimination. The Commission for Racial Equality had made limited impact, in spite of its powers.

The Government has accepted in theory that an attack on the causes of discrimination needs to be accompanied by action to counter its deep-rooted effects.

7.08 Role of Education

The Education Department's important 1981 paper on 'The School Curriculum' was categorical about the extent to which teaching in all schools should reflect the changed ethnic composition of society.

"What is taught in schools, and the way it is taught, must appropriately reflect fundamental values of our society... the work of school, is to reflect many issues with which the students will have to come to terms as they mature.

In Australia, 1966, the Ministry of Immigration was explicit that the then prevailing aim was assimilation. "We must have a single culture. We should have a mono-culture with everyone living in the same way, understanding each other, and sharing the same aspirations (Cigler, 1975).

But the everyday experience of teachers, and of both their black and white pupils, is that the 'inconceivable' is continuing to happen. Racism is an inescapable element in the life of the societies, now developing pluralist objectives. At the school level, teachers are well aware of this and are increasingly arguing that response to prejudice has to be made explicit in formal school policies, in dealing with the overt racist behaviour in the curriculum, in teaching materials, in the forms of school organisations, in self-examination by teachers of their own attitudes. The failure of multi-cultural objectives to combat racism and the failure to adopt serious strategies to bring about educational change have resulted in a wide gap between official theory and educational practice.

1. The education at all levels, should promote understanding of the principles and practices of racial equality and justice and commitment to them.
2. It should identify and remove all practices, procedures and customs which discriminate against ethnic minority people and to replace them with procedures which are fair to all.
3. It should involve ethnic minority parents and communities in the decision-making processes which affect the education of their children.
4. It should increase and support the educational and cultural projects initiated by the ethnic minority parents, organisation and communities.
5. Recruit ethnic minority teachers, administrators and other staff.
6. Thus educational institutions should be reoriented so that they provide equality for all the pupils. Policies of positive action must be adopted across the whole education process. At all levels, procedures have to be systematically analysed, objectives defined, policies formulated and experience monitored. But it is

the teachers in individual classrooms who are the pivot. It is they who implement changes and it is in schools that positive educational practices are being developed.

Teachers are presented with a complex and difficult task, for schools are embedded in society and they cannot control the influence on their pupils. But schools remain institutions that retain sufficient flexibility to encourage rigorous and open debate. Positive attention to all details by the teachers can contribute to the well-being, confidence, security and identity of all pupils. If teachers can't, who else can?

8

ECOLOGY AND EDUCATION

8.01 Introduction

There is nothing beyond nature, behind nature and other than nature.

Environment comprises almost everything around us. It includes humans, plants, animals and invisible micro-organisms. Also, it includes surface, water, air, land, oil and other elements available from the earth. The welfare of the human beings and a sound environment are interlinked with each other. Deterioration in the quality of the environment affects public health. Environment in simple semantics signifies surroundings. Environment is crucial in ecology, which is a multi-disciplinary science which deals with the inter-relationships subsisting between organisms (flora, fauna and humans) and their environment. An ecosystem is an ecological community considered together with the non-living factors in its environment as a unit. It is the unit which defines whether it is plant ecology, animal ecology or human ecology. Within the past decade 'ecology' has been prescribed as the panacea for the environmental ills facing mankind. In human ecology environmental problems have sociological and economic dimensions.

The transition from the domination of the biological determinism on the views of human and social behaviour to the environmental factors, i.e., social environmental factors (Benedict 1959, Child 1951), man as a creature, has given importance to the cultural and social factors. During the seventies, the quality of human life has taken a role to redefine the meaning and importance of "physical environment" and its impact upon the social environment of the human beings. This necessitated the realisation of the inter-relationship of all living things, including human beings, with the environment.

The earth and its surrounding envelope of life-giving water and air and all its living things comprise the biosphere. Finally man's total

environmental system includes not only the biosphere but also his interactions with his natural and manmade surroundings.

8.02 Problems of the Environment

The various types of problems arising out of this interaction may be classified as relating to population, land use and natural resources. The issue for the sociologist is the social environment of man, that is, the cultural and social heritage.

Due to the manifold population increase and the desire for improved standards of living, the need for many other items of modern life increases in order to meet the ever increasing needs. Many factories and industrial establishments have started to produce these desired goods. For various reasons, these industrial complexes are located mostly in and around urban areas. Even when they are located in rural areas, people migrate to these industrial complexes for work and in course of time, this once rural location is also urbanised and becomes a 'town'. People who migrate to these areas in search of employment are mostly poor, and they live in inner cities and towns in small improvised huts. A cluster of such huts ultimately develops into a slum. These slums lack the protected water supply, proper drainage and sewage disposal facilities, adequate ventilation and lighting and enough accommodation. As a result, the people in the slums are affected by numerous communicable diseases, both endemic and epidemic, such as typhoid, cholera, dysentery etc. Thus public health of not only the residents of these slums but also of the nearby residents is affected. In Madras city alone, about 1,200 slums exist and the population of the slum dwellers is over 6 lakhs constituting about 20 per cent of the city population.

Environment has emerged as an economic commodity of strategic importance in the present-day world. While technological developments in fields such as medicare, agriculture and transportation has greatly improved the quality of life, this same technology also endangers it in many ways by way of environmental pollution.

Effluents from the industrial factories pollute land, air and surface and ground water. Due to the discharge of industrial effluent and municipal sewage, even perennial rivers such as the Ganges and the Cauvery are polluted. Statistics reveal that death due to communicable diseases in urban areas in India is around 960 per 1,00,000 and it is about 1,650 per 1,00,000 in rural areas.

Environmental quality problems are wide in range, covering such questions as global catastrophe, natural resources conservation, preservation of wilderness, issues of air pollution, water quality, urban land use and traffic congestion and noise.

Burning of fossil fuels is already causing damaging increases in the acidity of rain and snowfall, and it is also raising the concentration of carbon dioxide in the earth's atmosphere. Raising carbon dioxide levels causes the warming of the earth's atmosphere to alter substantially the world climate, with possibly serious disruption of human activities, especially agriculture.

By the year 2000, the world's population is likely to be about 6.35 billions, the gap between the rich and poor nations will widen, the cost of food and fuels will rise. Productive grass and croplands will become fallow. As much as 40 per cent of the worlds remaining tropical forests would be lost, about 20 per cent if the present species will be extinct. Pollution of water supplies by toxic chemicals are also common threats to natural systems throughout the world.

World Bank reports that about 800 million people at present, are under conditions of absolute poverty, dominated by hunger, ill health, and with absolutely no hope. If the present devastation of the environmental quality is allowed to proceed unchecked, it may lead to the progressive impoverishment of world resources and degradation of the global environment. In the long run the world will be unfit not only for plants and animals but also for the human beings. Poverty itself is a form of environmental degradation. Preservation of the environment and development should proceed simultaneously and not at the cost of the other. Man should be able to improve his life and provide at the same time for the well-being of future generations. Our slogan should therefore be "Development without destruction".

Samuel Taylor Coleridge has aptly pointed out, "We face an ecological crisis because we are out of harmony with nature's ways of survival, we take from nature that which cannot be replaced and create waste that cannot be absorbed by natural cycles. Common sense tells us that infinite growth cannot be sustained by finite resources." Rousseau added, "Everything is perfect coming from the hands of the Creator, everything degenerates in the hands of man."

"Use the world without abusing it", is the injunction in the Bible.

Life on earth depends upon the availability of land, water, energy, climate, fuel, minerals like coal and petroleum, flora, fauna etc. Man with the help of technology and his efforts transforms these physical resources into goods and services for the exploding population to raise the standard of living. This technology and the social organisation have so far created what is called the "World Problematique" a crisis, that threatens life on earth. Mrs. Gandhi in her keynote address on the World Conservation Strategy in March 1980 said: "The necessity in the conservation is not a sentimental one but a rediscovery of a truth well known to our ancient sages. The Indian tradition teaches us that all forms of life—human, animal and plant—are also closely linked and the disappearance in one gives rise to change in the other." She also expressed the view that "we have learnt bitter lessons in the past when forests were cut to accommodate big industries and factories, resulting in the areas going dry or causing flash floods."

8.03 Role of Universities in Environmental Development

Many environmental problems in India are due to lack of knowledge and awareness regarding the habitat. The ignorance is to such an extent that even the present governmental efforts to check pollution on many occasions have not been recognised or accepted by the people, resulting in a waste of effort. In spite of such efforts, water-borne diseases such as diarrhoea, typhoid, dysentery, cholera, polio, hepatitis etc. are of common occurrence among the Indian rural population. This plight in slums and rural areas can be attributed to the ignorance about their environment. Even the educated population and social elites are not fully aware of their environment. The universities could act as the source of knowledge and information about the environment. Education on environmental and ecological systems should be the primary task of the universities and schools at present. The objectives of such environmental ecological education could be as follows:

1. to create an awareness among the people towards environmental/ecological problems.
2. to create the necessary inclination among the population to perceive the problems and motivate them to act.
3. to create the ability to evolve different strategies in terms of social, political, and cultural education.
4. to develop the required skills to solve environmental/ ecological problems.

5. to create a proper atmosphere for the citizens to participate in decision-making with regard to the environment.

We must make people realise that the principal product of our industrial civilisation is garbage. "America today stands poised on a pinnacle of wealth and power," says Steward Udall, "they live in a land of vanishing beauty, increasing ugliness, shrinking open space and an overall environment that is diminished daily by pollution, noise and blight." We are also paying a heavy price for our industrial progress and Bombay city is in the last throes of total decay, as a result of population explosion, pollution and acute socio-economic ills. The same will be the fate of other cities such as Delhi, Calcutta and Madras. The Ganges, the Jamuna, the Cauveri and other holy rivers which have been considered the pride of our nation, are now just open sewers due to industrial waste and sewage. Our drinking water is contaminated by human excreta, fertilisers, pesticides, DDT, waste materials from factories etc. causing a variety of diseases and killing cattle, fish etc. The net result is lower food production, widespread epidemics and death. Overloaded with too much waste, the running streams and rivers have lost their capacity to clean themselves. As is said, "If salt loses its saltishness, who shall salt it?" We can ask: "If water loses its purity, who shall wash it?"

8.04 Social Forestry

Environment in tropical zones is built with very complex ecosystems and the stability of equilibrium is rather delicate. The primary factors of ecosystem, namely, sunshine and rainfall which are nature's very carriers are very rich in tropical zones. For an appropriate energy build-up a judicious interaction of these two vital factors is needed, which depends on plant community. In the absence of adequate vegetation on land, the energy from sunshine, rainfall and wind can cause only destruction. Tree communities are the lungs of the atmospheric air. Air in cities is getting polluted with carbon dioxide, sulphur dioxide, hydrogen sulphide, dust particles etc. due to over-crowding of population, factories and automobiles. This pollution is highly dangerous to the health of man and animals. These require lungs in the form of trees and vegetation, to purify air. Added to these is noise pollution. Interestingly, trees in concentration reduce noises by the system of deflection and even absorb sound waves.

The scope of social forestry is enormous. Vacant, unutilised and

under-utilised lands are available in the form of village grazing grounds, village commons, river banks or road, railway line fringes, field bunds, fence stretches, backyard vacants, house compounds etc., which account for about 16.37 lakhs hectares. These should be availed for forestry by the owners and farmers should be made aware of the fact that tree crops are also cash crops.

The Forest Department has recently formulated a huge project to implement social forestry over the entire state consisting of the four components, namely,

1. Village forests
2. River canal plantations
3. Road avenue and railway line plantations
4. Extension services.

The first three components will avail of government, panchayat and other public lands for raising forestry. The fourth component, that is extension services, is a service function to education and popularises the importance of forestry among people of all kinds, rural and urban educated and uneducated. The forest department sells seedlings at a nominal cost, very much below the cost of production, in order to popularise forestry among farmers and others. In this noble endeavour of popularising social forestry, educational institutions, service agencies, social organisations and every educated individual can play a leading role. Each educated individual can provide proper education and motivation on the benefits from social forestry and bring about people's participation and involvement. Only the education of the people through service-minded, educated people is the vital instrument to take messages to the people at large. Social forestry is not just an activity of planting trees, but it is a movement to symbolise conservation, ecology and the environment. As Shakespeare rightly pointed out, we should make people,

Find tongues in trees
Books in brooks and
Sermons in stones.

In the past few centuries, the history of forests has been one of diminishing assets and the size of the forest all over the world is shrinking, due to the increase of population accompanied by economic and social development. More than the direct benefits of the forests such as firewood and charcoal, raw material for paper making, tanning

and leather industry, pasture for cattle, green leaf manure etc., the role of forests in keeping the environmental balance is more vital. In addition to meeting man's essential needs of food, clothing and house, it keeps the environment clean and amenable for living. Forests help to increase the number of rainy days and effect a better distribution of rainfall. The denudation of forests results in erratic and ill-distributed rains. In the absence of adequate tree cover, the raindrops will strike the naked earth with a high velocity and cause soil erosion along with a heavy run-off. Thus forests play a major constructive role in flood control. Water seeps through the earth and comes out in the form of springs, forming the brooks and rivers leading to reservoirs. Consequently, the heavy run-off and floods are avoided and the stored water is made available for power generation and irrigation even when there are no rains. The absence of adequate forests will increase the siltation in rivers and reservoirs, reduce the water-holding capacity and consequently lead to loss of food production and power generation. The recurrent floods in the Gangetic plains is only due to the indiscriminate felling of trees and destruction of forest cover in the Himalayas, similar to the recent floods and land-slides in the Nilgiris.

Also, the leaf litter accumulating on the floor serves as a protective blanket, absorbs considerable moisture and releases the water gradually, thereby reducing loss of surface and subsoil moisture through evaporation. If this is removed, excessive evaporation results in the lowering of water tables in the immediate vicinity of the hills. To prevent damage by wind erosion and reduce the crop loss due to dessication by heavy winds, belts of trees in the coastal areas and around the farms would be of great help. In addition to providing clean water and fresh air, parks, wood lots and forest areas provide recreation and resorts for rest and restoration of health. The polluted air not only causes diseases such as rickets, bronchitis, asthma, lung cancer etc., but also has the greenhouse effect of raising the temperature of the earth which is undesirable. Hence, each educated individual must take every step to stop further pollution of the atmosphere and to clean the already polluted atmosphere.

The objective of education is not only to create skilled technicians, scientists, technocrats and to preserve the culture of a particular community but also to impart a clear sense of awareness about the environment and to preserve the ecosystem at large.

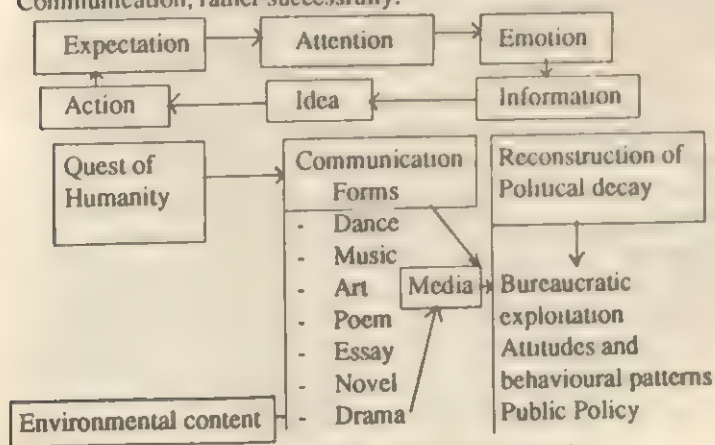
Informal education is the best suitable medium to propagate

wisdom and educate the masses. "To preserve man, preserve ecosystem" should be the message to be conveyed through all forms of education—formal, non-formal and informal. In this noble task all media, print, audio tapes, video cassettes and films should be exploited so that each individual even in the remote rural areas is reached.

As Mrs. Gandhi pointed out, "Conservation principles should be taught to children just as personal cleanliness, health and sanitation, not for any romantic reason but because they are important principles affecting human life."

8.05 Methods

The best way to achieve our expectation regarding environmental conservation is to consider our experiences about the movements in India such as the Chipko Movement of the Himalayan foothills in the districts of Chamoli and Garhwal and the Silent Valley Hydroelectric project of Kerala, which have attracted international attention. In the Chipko Movement, women's organisations conducted an activity against the forest exploiters by embracing trees and asking the exploiters to kill them first, before cutting the trees. The success of the Chipko Movement was possible because they translated the facts of environmental science into folk songs, a language understood by the local people. From these experiences we learn the workable methods of educating, organising and activating the people for the urgent need of environmental conservation and its enrichment. Many environmental action groups in India and abroad are trying out Erik Barnow's Model of Communication, rather successfully.



Erik Barnow's Model of Communication

Role of Universities

According to UNESCO (1981) the objectives of environmental education were awareness, knowledge aptitude, skills, environmental ability and participation. These should form an integral part of general objectives of education. Bloom subsumed all these objectives to three domains, viz., cognitive, affective and psychomotor in his book, *Taxonomy of Educational Objectives*. Universities can do these through teaching, research, training and extension education.

Teaching

Environmental education content/concepts may be infused into the existing syllabus of relevant subjects or by addition of new units. A separate unit or a separate elective in the existing courses can be added. Graduate and post-graduate courses may be started in environmental education. Teachers must be trained both through formal and non-formal means.

Training

Continuous training must be provided to update the knowledge in this new area of the existing personnel to cope with the changing demands of the present-day technology.

Research

For intelligent analysis and decision making, research is needed, in environment problems. More research centres at the university level is the need of the hour. This is a multi-disciplinary subject. Hence the disciplines which are concerned with environmental problems should coordinate and should be assigned to take up research projects.

Extension

The university should extend its knowledge and understanding to the community around us. Improvement of knowledge and increase in the awareness of environmental issues are the prime objectives of extension. Hence the concerned departments should organise short-term inter-disciplinary training programmes for various functionaries involved in environmental education. As centres of technical knowledge, universities can prepare teaching-learning materials. Since the environment belongs to everyone, participation by the public in environmental programmes is very important. Radio broadcasting is the best medium for disseminating knowledge to rural areas. Poster

campaigns on world environment can draw public attention to the issues related to the environment. Environment Education awareness clubs similar to population clubs can be started in colleges to educate the students and through them the community around. Extension lectures can be periodically delivered to reach the out-of-school rural youth, slum dwellers and other sections of the population. Film shows, wall papers, bulletin boards, exhibitions, elocution, essay competition, publication of environmental issues in magazines and use of folk media can effectively deal with issues in this vital aspect.

8.6 Conclusion

Population, poverty, unemployment, under-employment, illiteracy and ignorance are the major causes of environmental problems. Since the majority do not have access to the formal system, creating an awareness on environment issues should be carried out through non-formal and distance education methods. For immediate results, the environment education component can be integrated in all the rural development and anti-poverty programmes such as ICDS, Minimum Needs Programme, Drought Prone Area Programme, IRDP, FFLP, Small and Marginal Farmer's Development Agency, Command Area Development Programme, Tribal Area Development Programme, Social Forestry Programme, Hill Area Development Programme, etc. The latest communication technology has to be maximally exploited to communicate better with the rural masses. Distance education technology with all its attractiveness and flexibility may be used to educate both the literate and the illiterate at their doorsteps during their leisure time.

It will be fitting to conclude with an advice given by Dr. E.F. Schumacher in his book, *Small is beautiful*.

"The God Lord has not disinherited any of his children as far as India is concerned. He has given her a variety of trees. Buddha included in his teachings the obligation that every good Buddhist should plant a tree at least every five years. As a result of this, India was covered with trees, and was free of dust, with plenty of water, plenty of food and shade and other materials. This idea can be followed and every able-bodied person can plant one tree a year which would produce food-stuffs, fibres, building materials, shade, water, almost anything that man really needs."

Each educated individual can teach one who is not aware of the environmental issues and also plant a tree once a year.

THE OPEN UNIVERSITY

9.01 An Introduction to the Open University

In 1969, six years after Sir Harold Wilson voiced his idea for a 'University of the Air' the Open University received its Royal Charter. In 1971 courses went out to students for the first time. Since then a total of 1,80,000 people have finally registered as undergraduates of the university and another 1,20,000 have studied single courses as associate students. In 1983 there were 65,000 undergraduates at various stages of their degree studies and another 23,000 people were taking single courses.

The Open University is an independent, self-governing distance-teaching institution which awards its own degrees, diplomas and certificates. It is administered from the headquarters at Walton Hall in Milton Keynes. It employs some 2,800 full-time staff, of whom around 650 are academicians and 500 are administrators; the remainder provide secretarial, clerical and technical support services. About 600 staff are based in the university's thirteen regional offices, which administer the nationwide network of 260 study centres and 5,000 part-time tutors and councillors.

Open University students do not attend a campus, but learn at home and in their own time from specially written booklets known as course units, recommended textbooks, radio and television broadcasts and other audio-visual material, and home experiment kits for do-it-yourself experiments. In addition there is a certain amount of face-to-face tuition at the study centres, and at annual summer schools. Students are also encouraged to meet in self-help groups throughout the year. The university newspaper *Sesame*, a series of open forum broadcasts and the Open University Students' Association with its network of local branches, all play an important role in helping students to communicate with each other and the staff.

The minimum age for admission is 21 years and the aim of OU is to provide university education on a large scale to all people who have missed the chance in their early years. The course material is written by academicians, working in teams. All their preliminary drafts are read and commented upon by other members of the course team, and the final course is also scrutinised by external assessors. Radio and television programmes are made in partnership with a special unit of the BBC located on the Walton Hall campus. Some 35 hours of television and 13 hours of radio are broadcast each week, and another 340 programmes are distributed in the form of audio cassettes.

The Open University offers three programmes of study: the Undergraduate Programme, which involves students in work over a number of years, typically five or six, and leads to the degree of Bachelor of Arts or further to a BA with Honours; the Associate Student Programme which offers a variety of single courses, both on academic subjects and vocational updating and professional training, as well as self-contained learning packages and short courses on matters of everyday concern; and the High Degrees Programme, which provides limited opportunities for both taught and research-based postgraduate study.

9.02 The Undergraduate Programme

The BA (Open) is built up by successfully completing course credits over a period of years. Six credits are needed for an ordinary degree and eight for an honours degree. Courses are presented either as 'full credits' or 'half credits'. A full-credit course takes an average of 12 to 14 hours of study each week over a period of 32 weeks running from February to October. A half credit spreads the 12-14 hours of work over a fortnight. Students may take a maximum of two full credits each year, so the shortest time in which they can achieve a degree is three years, although the majority work at the rate of one or one-and-a-half credits a year, thus completing their degree in four to six years. All Open University first degrees are designated BAs, even though the subject studied may be science or technology based.

During each course, students submit written exercises known as assignments for continuous assessment by their local tutors. Each year about 7,00,000 assignments are submitted and marked. In addition some assignments are designed to be marked by the university's central computer. At the end of each course, students sit for a three-hour

examination. A course credit is awarded for the successful completion of a combination of both elements of assessment.

At present there are 131 undergraduate courses, including the foundation-level courses with which students are required to start their degree programme. The courses are written by the Open University's six faculties of Arts, Social Sciences, Science, Technology, Mathematics and Education. Many courses are interdisciplinary and are produced jointly by more than one faculty.

The application period for undergraduate study runs from January until the end of June for studies beginning the following year. More than 45,000 people applied for the 24,500 places available in 1983. In any one academic year the total of registered undergraduates number around 65,000. They come from all walks of life. Teachers form a decreasing proportion of the student body, but are still the largest single group at 23 per cent. Housewives comprise 16 per cent, while technicians make up 13 per cent. People in manual jobs account for 7 per cent while those in office, sales and service industry jobs account for 15 per cent. The balance between male and female is roughly equal.

Applications are accepted on a first-come, first-served basis—as long as the applicant lives in the United Kingdom and has attained the age of 21. There are no other requirements for entry. A large proportion of OU students join the university with less than the normal university entrance qualifications. Figures show that of any year's intake of finally registered students over 50 per cent will eventually graduate. More than 57,000 students have now gained a BA (Open) and nearly 9,000 of them have gone on to acquire an honours degree.

The university's undergraduate programme is financed largely by the government through a grant made directly from the Department of Education and Science. The remainder of its income for this programme comes from students' fees, which in 1983 was £ 127 for a full credit and £ 63.50 for a half credit. Many courses entail attendance at a one-week residential summer school, the fee for which is currently £ 82. Most students pay their fees, although some get help from local authorities or employers. Those who are unemployed or on a low income can obtain financial assistance.

9.03 The Associate Student Programme

The Open University Centre for Continuing Education offered about 150 courses for associate students in 1983. The courses fall into various

categories. There are degree-level courses which last for ten months, exactly like those in the Undergraduate Programme, and offer scope for people to explore new subjects or expand existing knowledge. These courses are assessed and can count towards an OU degree should the student wish to transfer subsequently to the Undergraduate Programme. The application period for the Associate Programme for study in the following year runs from April to October: there are no formal entry requirements other than the minimum age of 21 and an address in the UK.

The Associate Student Programme also includes many vocational updating and professional training courses. For example, there is a series of courses for the In-service Education of Teachers (INSET), and another group intended for health and social welfare workers. A recent development is a range of management education courses. For those who need to keep up to date in their careers there is a range of modular scientific and technical updating courses; another example of this kind is medical education such as drug therapy, to help doctors keep up to date. Many of these courses are offered in the form of self-contained packs, which lend themselves to adaptation for in-house training programmes. Two packs dealing with microprocessors have enabled many thousands of British managers and engineers to familiarise themselves with this new technology.

Continuing education courses are self-financing either from student fees or from sponsoring funds. Because of this, fees are higher than in the Undergraduate Programme, ranging from around £ 120 to £ 400.

Also part of this programme are a range of 'Community Education Courses' which last around eight weeks. They are presented in the popular magazine style and deal with everyday concerns and responsibilities. The subjects range from parenthood to consumer matters. These courses are not assessed and cannot be counted towards Open University degrees. They can be studied at any time of the year, although there are related broadcasts which go out at specific times. Course fees average about £ 20.

9.04 The Higher Degree Programme

The Open University awards higher degrees by research. These are the B Phil (duration one to four years); the M Phil (duration three to eight years). These may be taken either part-time or full-time, and the University has both internal and external postgraduate students. Plans

are also being made for a number of taught 'masters' degrees, and a pilot course of this type already exists, entitled Advanced Educational and Social Research Methods.

In 1983 there were 717 postgraduate students, which included internal and external, full-time and part-time supervisor, of whom there are 306, and most external students have an external students. Each student is allocated to an internal external supervisor, of whom there are 353. The minimum entrance requirement is generally an upper second class honours degree. The application period runs from May to mid-August.

Since the Higher Degree Programmes began in 1969 the university has awarded 197 higher degrees.

9.05 Applications from Abroad

Although it is not generally possible for anyone who is not a resident of the United Kingdom to register as a student of the Open University, people living outside the UK can purchase course materials. Most course materials, including films and tapes, are marketed by Open University Educational Enterprises Limited after a course has been in existence for a period of one year.

There are three special schemes which enable people to study overseas. Members of the British Armed Forces serving in West Germany and Cyprus, and their dependents, are able to study a limited range of courses, and by special arrangement with the British Council in Brussels, English-speaking residents of Belgium can register as associate students and choose from a selection of ten degree-level courses. Finally there is an arrangement for merchant seamen to enrol with the Open University, their course material being forwarded by the college.

People who begin their degree studies in the UK but subsequently have to move abroad are usually able to continue their studies providing they have a UK forwarding address.

The role of the Open University is important in providing intellectual re-orientation of knowledge and professional refresher courses.

NON-FORMAL AND ADULT EDUCATION

10.1 Non-formal Education

"A civilisation survives only so long as it makes adequate responses to the challenges of its time." Due to the explosion of knowledge and population, further learning has become essential and education has become a lifelong process. Informal education is a process through which everyone acquires knowledge and skills. "Informal education is a heuristic concept and acquires its meaning within the context of a wide conception of education, which embraces the whole of all possible educational processes" (Schofthaler). Informal education functions as a residual category but is all-pervasive. In a UNESCO publication (Melzer 1978) formal, non-formal and informal learning systems are treated equally, but the latter are reference values for the other two rather than independently identifiable. The nomenclatures as formal, non-formal and informal are assigned based on the organisations, institutions, method of delivery, timings, goals and target groups. These three systems are considered not as alternatives but as complementary and supplementary activities within the same system.

Non-formal education is an organised and systematic learning activity carried on outside the formal system. But it is neither a short-cut method for rapid education, nor an alternative educational system. It is flexible, systematic and relevant. The philosophy of non-formal education is learning and not teaching, and learning takes place at the learner's place, pace and time. Non-formal education provides a second chance for learning to those who missed formal schooling due to some problem or the other, in their early years and it enables the rural and urban poor, within the programmes of 'Integrated development', to acquire relevant knowledge and aptitudes. Formal education is offered by institutions with focus on only teaching and preparing students for

their future life. Informal education is provided by social institutions, peer groups, mass media etc. Non-formal education is not formally institutionalised and it is not the monopoly of formal institutions. It concentrates mostly on out-of-school populations with the objective of offering useful information, knowledge and skills for the present use. Its content is need-oriented and interest-based.

10.02 Lifelong Education

The International Education Commission Report (1972) entitled *Learning to Be* brought in its wake the new cult of learning society, where every individual has kept abreast with the times. The formal system with its inbuilt resistance cannot satisfy the needs, demands and aspirations of resurgent societies. The search by educationists for a system to provide a new direction and produce identifiable results in the individuals led to the foundation of the non-formal system. Coombs and Ahmad (1974) defined non-formal education as "any organised systematic educational activity outside the framework of the formal school system to provide selective type of learning to particular sub-groups in the population, adults as well as children."

10.3 Need for Social Reform—Illich and Freire

Both Ivan Illich and Paulo Freire attack traditional style learning from different angles. They both have concern for the dignity and work of the individual and liberation of men and women from an oppressive environment. Illich calls for a cultural revolution. He criticises strongly the exaggerated importance attached to degrees and diplomas in the formal system as it "confuses teaching with learning, the grade advancement with education, a diploma with competence and fluency with the ability to say something new." Illich points out that the adult illiterates learn quite effectively the meaning and message that our educational systems teach: that in order to amount to something, people must depend on schools to unlock all doors. He advocates as a solution the "Inverse of school or deschooling" where the learner will establish new relationships and choose from whom he wants to learn. When the school teacher fuses in this person the function of the judge, ideologue and doctor, the fundamental style is perverted by the very process which should prepare for life.

Travelling a different route, Paulo Freire also comes to the same conclusion. Learners need to be liberated from the oppression of the traditional teacher. A style of teaching, which is itself intrinsically

liberating should be evolved. Through education adult illiterates must arrive at a new awareness; look critically at their own social situation in order to take steps to change the society, which has previously denied them an opportunity to participate. Thus, for Freire, education in its true sense, should be a revolutionary process. In order to serve the purposes of social revolution, education must first be capable of helping man to become more aware of and responsible for himself and his world through a process of reflection followed by action and further reflection. This he calls 'praxis'. He traces the root causes of apathy and ignorance to class oppression and to what he sees as the mistaken paternalism of society as a whole. The class structure of society, he claims, does not encourage the poor to know and respond to the concrete realities of their world. They are kept locked into a situation where the development of their own critical awareness and response is practically impossible. This he calls the *culture of silence*. School is a major instrument in maintaining this *culture of silence*, for it fails to encourage a critical analysis of reality, egalitarian dialogues and the mutual humanisation of teachers and learners. Freire's main contribution to the field lies in the concept of "conscientisation arousing man's positive self-concept in relation to his environment and society through a 'liberating education', which treats learners as subjects (active learners, and not as objects (passive recipients)." A liberating education must accordingly shed the elements that perpetuate the dichotomy of one set of people in positions of prestige and authority, the oppressors and the others in positions of dependence and inferiority—the oppressed.

To help the peasant break away from traditional fatalism and feelings of powerlessness, Freire emphasises reflective thinking as the crux of the educational programme. He then introduces the concept of praxis (reflection-action-reflection) as man's real function. Men and women are not objects to be manipulated but are active and creative subjects with the capacity to examine critically, interact with and transform their world. Since the teaching style seems to be a key factor in this process, Freire offers a detailed analysis of the shortcomings of his most direct and practical contribution to non-formal education ideology.

In prescriptive or directive teaching, the teacher assumes an authoritarian role as the best qualified to prescribe what the learner should learn and how he should think and behave. The teacher acts as the guardian of the secret. This authoritarian role tends to diminish the

role of the learner as a human being. Thus Freire claims that "every prescription represents the imposition of one man's choice upon another, transforming the consciousness of the man prescribed into one that conforms with the prescriber's consciousness." Freire is unsparing in his attack on this prescriptive kind of teaching, which he refers to as the 'banking system'. His criticism has found a good measure of support among the non-formal educators around the world. In the banking system of education, the main transaction, according to Freire, is the act of transferring information from the teacher's head and depositing it into the student's heads. The students are thus the depositories and the teacher is the depositor. Certain traditional teaching attitudes are deduced from this concept. Freire describes them as the system of domestication which reflects the oppressive nature of society as a whole. The differences are described below.

Teacher	Students
Teacher	are taught
Knows everything	know nothing
Talks	listen meekly
Disciplines	are disciplined
Chooses and enforces choice	comply meekly
Acts	have the illusion of acting through the action of the teacher
Chooses programme content	adapt to it often in
Confuses authority of knowledge with his own professional authority	opposition to their freedom.
Subject of learning process	mere objects

In opposition to this 'domesticating' system, Freire suggests a problem-posing education which breaks the vertical pattern characteristic of traditional teacher-student relationship and establishes horizontal dialogues. Thus, in Freire's conscientisation,

- no one can teach anyone else,
- no one learns alone, and
- people learn together, acting in and on their world.

There is no longer an authority-dependency relationship. Instead of domesticating, the learning experience provides adults with opportunities for critical analysis of their environment, for deepening

their perceptions to it, and for building confidence in their own creativity and capabilities. Teachers and students thus become jointly responsible for a process in which all grow. Education must therefore increasingly challenge them, move them to authentic and critical reflection, thereby increasing the scope of their perception, and evoke new challenges and commitment to their spontaneous action upon reality. This total process is described by Freire as one of 'humanisation'—the pursuit of full humanity—which he identifies as man's historical vocation.

10.04 Characteristics of Non-formal Education

- a. Mainly intended for the deprived sections of the society; women and rural sectors receive special attention.
- b. Flexibility regarding duration and timing of the courses, implementation agencies, financial pattern etc.
- c. A stress on the involvement of the community in planning of the programmes, curricular design, evaluation etc.
- d. Departure from dependence on the professional teacher and an attempt is made to select instructors from the local community.

Emphasis on Development Orientation and Functional Education

Ultimately, the minimum basic needs of the poorest must be provided by non-formal education leading to their development. Farmers, both landless and marginal, and workers need training to produce more, housewives to take better care of their family; adults whether men and women need to build and sustain new institutions of production, co-operation, welfare, education and culture. All these new clients—millions of unschooled and semi-schooled men, women, youth and children—could not be taken to school, for, in many cases, there were no schools to take them to. Each developing nation had to become one big classroom for its expanding population.

Thus the need for non-formal education was rather compelling. It was seen as the only alternative system by the educational and developmental experts for the efficient and timely delivery of educational and developmental inputs to all those who were in need of them, when they needed them and where they needed them. Thus non-formal education was seen as an appropriate medium immediately usable, responsive with highly attractive economic returns.

Non-formal education is more difficult to design and deliver as it

has to be responsive to the immediate needs and requirements of specific target groups of learners. It has to be learner-oriented, need-based, problem-solving and community centred, and it is the education for here and now. The non-formal educator has multiple roles to play, he or she has to combine the role of curriculum designer, extension worker, animator or facilitator, and change agent in addition to being an instructor.

According to Bhola, a discussion of the non-formal education issues can be grouped into the following four categories:

- a. Definitional and identity issues — those relating to the definition of non-formal education and how it is different from formal education.
- b. Policy issues — those relating to the roles of non-formal education in the new distribution of education goods and power, status, and the economic goods that it might bring in its wake.
- c. Institutional issues — those relating to the delivery of non-formal education, co-ordination and institutionalisation of the mechanism of its delivery;
- d. Curricular issues — those relating to the facts and values embedded in the curriculum of non-formal education and the control of such curricula by the learners and the providers of non-formal education.

A correct definition of non-formal education is of practical importance for educational planners and administrators in order to distinguish it from the other forms of education. Some view it as a third wave in education, a possible approach to de-schooling society, and as an instrument of mass education and democratisation. There seems to be distributive justice in the promotion of non-formal education.

10.05 Objectives of Non-formal Education

There cannot be a uniform standardised principle governing the formulation of objectives of non-formal education, for the objectives emerge from the learner and are influenced by the environment and the teacher. The objective should be realised within the shortest possible time, for they are meant for the present use. It should provide learning and any pre-designed programme does not meet the needs of the learner. A UNESCO document (APEID, 1978, p. 6) mentions that the objectives of non-formal education are as follows:

- a. To promote awareness through pre-literacy education and acceptance of learning as a means to individual and national development.
- b. To provide equal educational opportunities to all and through them more equitable distribution of gains and employment avenues.
- c. To establish national infrastructural needs, and provide human resources development.
- d. To make communities self-reliant through improved management skills involving them in the planning, organisation, and implementation of programmes.
- e. To effect transfer of appropriate technology as per requirements.
- f. To mobilise existing and potential local resources in the community.
- g. To make social and community education programmes meet the demands of the rapidly industrialising societies.
- h. To promote programmes for non-formal education directly linked to productive skills and tangible gains.

Coombs et. al. (1973) and Simkins (1977) mention the following as the objectives of non-formal education:

- a. Development of positive attitude towards life and the world;
- b. Achievement of functional literacy and numeracy;
- c. Development of scientific outlook and elementary understanding of the process of nature;
- d. Attainment of functional knowledge and skills for raising a family, operating a household, earning a living and effectively participating in civic life.

According to Naik (1977), the objectives of non-formal education programmes in developing countries are to provide minimum education at a lower cost, specially to the groups remaining outside the sphere of formal education system.

Thus it is seen that there cannot be a uniform set of objectives applicable to all groups and the priorities have to be decided by each group, the focus being on progressive development.

Non-formal Education for Development

Economic growth alone does not imply development. Development is a communitarian process with an element of cooperative effort and, true

development takes care of all-round process, touching on social, economic, political, cultural and spiritual aspects of a person and a community. Progress can be achieved only when social change is generated and a new social structure is evolved by people fighting oppressive forces. This can be done by:

- a. Creating awareness about the problems around and the resources available to solve them through collective efforts.
- b. Offering appropriate knowledge and skills to improve the quality of life.
- c. Developing people's potentials to analyse social reality and identify causes of the state of art.
- d. Bring about change of attitude conducive to development and help to discover their cultural identity.
- e. Motivate people to plan and implement action programmes in an environment of people's participation in planning and implementation.

About 800 million persons all over the world live in abject poverty, of whom 500 million are children suffering from malnutrition. The 1974 World Conference in Rome with 134 governments, pledged to eradicate poverty in a decade but the goal is nowhere nearer to being realised than when it was set.

Education and the Human Resources Development

The World Bank has declared that the qualities of a nation's people have an important influence on its prosperity and growth, as human beings are the source of ideas, decisions, actions, and innovations. Besides entrepreneurial and administrative abilities, technological, scientific, and professional skills are very important factors. Human beings should be prepared to assume their role as responsible citizens, to develop a scientific outlook, and have an awareness of their rights and responsibilities, to sensitise them to ethical, social, and cultural values which make them an enlightened nation; and finally, to impart the necessary knowledge, skills, and attitudes necessary for the nation's development. Education is the most powerful agent in increasing the potential of human resources. Formal systems have become costlier and are incapable of providing education to all. Also, they are becoming irrelevant and ineffective and are a barrier to social change. This view was supported by Ivan Illich in *De-schooling Society* and Paulo Freire in *Cultural Action for Freedom and the Pedagogy of the Oppressed*. The

supplementary system identified by educationists and thinkers to cater to the above-mentioned needs and demands of the human resources is the non-formal education system.

In developing countries, most efforts towards rural development have bypassed the poor (Muyeed, 1982). The programmes have not made any impact on illiterate masses. Non-formal education programmes should be a part and parcel of development programmes, for without education the beneficiaries may remain unaware of the various development programmes and not understand the process of development and the emphasis on self-reliance (Bordia 1979). Thus non-formal education can facilitate effective implementation of developmental programmes undertaken by the Central and State Governments, welfare agencies and the people themselves. For only an educated person can read a particular document, understand and point out the lacunas or deficiency in the implementation of any welfare programme.

Development should be understood as a process designed to progressively create conditions in which every person can enjoy, exercise and utilise under the Rule of Law, all his human rights, whether economic, social, cultural, civil or political. Each individual has the right to participate in and benefit from development in the sense of a progressive improvement in the standard of living and the quality of life. Development without people's participation is not genuine development. Policies are made from the top through the 'Top-down approach' and in most cases the people are far removed from making any decision on planning and development programmes. People's participation is a necessary pre-condition for the successful implementation of any development programme. The 'Bottom-up' approach of planning involves people in the policy making and makes participation voluntary. Participation reduces power differences and hence contributes to equalisation and social justice. Mere decentralisation does not produce participation or create new opportunities. There is a school of thought among many educated people that the poor, ignorant and illiterate people are incapable of making their decisions and improving themselves and hence must have their decisions thrust upon them. Only non-formal education can solve this problem. Participation without education is a meaningless process.

Non-formal Adult Education

The term 'adult education' "is synonymous with out-of-school education and means that education is provided for the benefit and adapted to the needs of persons not in regular schools and university systems and for those who are generally fifteen years and above" (UNESCO, 1975 c. p. 4). The International Commission on Education gives the following definition of adult education:

"For a very large number of adults in the world today, it is a substitute for the basic education they missed. For the many individuals who received only a very incomplete education, it is the complement to elementary or professional education. For those whom it helps respond to new demands which their environment makes on them, it is the prolongation of education. It offers further education to those who have received high level training. And it is a means of individual development for everybody" (UNESCO 1927 b.p. 205).

Adult education leads us to the inevitability of non-formal approach to adult learning. It is a growth and development-oriented education which can be planned and designed by others as well as the learners themselves. The adult learner to a great extent can assert himself in regard to content, methodology, place and time of learning.

10.06 Andragogy: A Technology of Involvement—Knowles

The theory of andragogy as developed by Malcolm Knowles combines elements from humanist psychology with a "systems approach" to learning. Knowles describes andragogy as the art and science of helping adults to learn. Like the humanists, he believes that the greatest learning takes place when teaching methods and techniques involve the individual most deeply in self-directed inquiry. The underlying assumption in andragogy is that the adult learner has deep psychological need not only to be self-directing but also to be perceived by others as being self-directing. Therefore, teachers should not impose their will or their views on adult learners, rather suppressing the compulsion to teach, they should place the responsibility for learning in the hands of the adults themselves.

Knowles believes that ego involvement is the key to successful adult education. Accordingly, we must develop educational techniques to enable adults to assess their own needs, formulate their own goals, share responsibility in designing and carrying out learning experiences,

and evaluate their own programmes. In this whole process the role of the teachers is that of a professional technician and guide. Teachers also maintain the conditions of group interaction in which individuals can derive maximum personal benefit from being part of the group. Good teaching comprises the interaction between two key variables, the learner and his environment.

10.07 Scope of Adult Education

The Indian Education Commission (1964-65) defined the concept of literacy and conditions necessary for the success of literacy programmes in the light of the recommendations of the World Conference by UNESCO 1965. Education is a lifelong process and adults today should understand the changing world and the growing complexities of society such as knowledge and population explosions. Thus viewed, the function of adult education in a democracy is to provide every adult citizen with the opportunity for education of the type which he wishes and which he should have for his personal environment, professional advancement and effective participation in social and political life. In normal conditions, programmes of adult education provide universal literacy.

An effective programme of adult education in the Indian context should envisage the following:

- a. Liquidation of illiteracy;
- b. Continuing education;
- c. Correspondence education;
- d. Libraries;
- e. Role of universities in adult education; and
- f. Organisation and administration of adult education.

10.08 Need for Adult Education

In spite of many literacy drives and programmes, the literacy percentage in India according to 1981 census is only 34 per cent, even after 40 years of independence. The price which the individual as well as the nation pays for illiteracy is high, although one grows accustomed to the persisting malady and becomes insensitive to the harm it does. Illiteracy as a mass phenomenon blocks economic and social progress, affects economic productivity, population control, national integration and security and improvement in health and sanitation. In the words of V.K.R.V. Rao, "Without adult education and adult literacy, it is not

possible to have that range and speed of economic and social development which we require, nor is it possible to have that content or quality to our economic and social development that makes it worthwhile in terms of values and welfare." A programme of adult education and adult literacy should therefore take a front place in any programme for economic and social development. Adult education has a high value for it works against social exploitations. Mehta (1978) points out the social consequences of illiteracy and poverty that give rise to the high rates of interest charged by moneylenders. Freire (1973) points out that oppressed people can rise above their lot through education and thus adult education programmes lead to development of social awareness of the individual as well as the community. The Universal Declaration of Human Rights (Article 26) which states that "everyone has a right to education", applies equally to the adults of the future as to those of the present. The existence of the vast masses of illiterate people in our country, which pride themselves on their noble traditions of learning, is humiliating. It is the education that develops social, moral, spiritual and other values in people. It is a necessity of the modern society. The speed with which the world is changing makes initial professional learning of an individual soon outdated, thus compelling him or her to learn more (Becker 1974). It broadens the individual's outlook on life and eliminates superstitions and taboos from his life. Adult education takes cognizance of the drawbacks and potentialities of each individual and utilises them to increase his 'rank' in the society.

10.09 Adult Education in India

Elimination of illiteracy has been one of the major concerns of our government since Independence. An ambitious programme of Social Education was launched in the First Five Year Plan. This was integrated with the Community Development Programme in the Second Five Year Plan. The government launched the adult education programmes on a massive scale in 1978, which was called the National Adult Education Programme (NAEP), to give a boost to the literacy percentage of the country. Initially the programme intended to cover 10 crore adult illiterates in the age group 15-35 years, between 1978 and 1983. It had the following objectives:

1. Making participants critically aware of the environment around them. (Awareness)

2. Giving participants opportunities to raise their functional competence to change their environment. (Functionality)
3. Enabling participants to pursue a course of literacy instruction. (Literacy)

The philosophy of the programme is based on the following assumptions.

1. That illiteracy is a serious impediment to an individual's worth and to the country's socio-economic progress;
2. That education is not co-terminus with schooling but takes place in most work and life situations.
3. That learning, working and living are inseparable and each acquires a meaning when correlated with others.
4. That the means by which people are involved in the process of development are at least as important as the ends.
5. That the illiterate and the poor can rise to their own liberation through literacy, dialogue and action.

The target could not be achieved for various reasons. The adult education programme meant for the eradication of illiteracy, has now shifted its total coverage of the persons in the age range of 15-35 from 1983 to 1990, within which period, nearly 110 million adult illiterates of that age group were expected to be covered. A boost had been given to the programme by including it in the 20-point economic programme of the Government of India. The various schemes now working for literacy programmes are as follows:

1. Rural Functional Literacy Project (Govt. of India)
2. Adult Education Programme (Nehru Yuvak Kendras, Govt. of India)
3. Adult Education Programme (State Govts.)
4. Adult Education Programme (Colleges and Universities UGC)
5. Adult Education Programme (Voluntary/Private Agencies)
6. Functional Literacy for Adult Women (Govt. of India).

The University Grants Commission has decided to actively involve the universities and colleges all over the country in the Adult Education Programme, with special emphasis on women, Scheduled Castes/Scheduled Tribes and people from rural and backward areas as also the physically handicapped. It has earmarked about Rs. 135 million for this programme. The universities and colleges will be provided 1,003 million financial assistance up to 1990 to enable them to undertake

long-term planning and to formulate their action plans. The voluntary agencies are also encouraged to take up projects especially in areas where Scheduled Castes and Scheduled Tribes are concentrated as other agencies do not reach them.

10.10 Strategy for Implementing the Programme

The Adult Education Programme is designed to cover districts having a literacy rate below the national level and giving priority to the target group of women, Scheduled Castes and Scheduled Tribes, to migrant labourers and other weaker sections of the society to improve their literacy position.

The programme is being implemented by the following main agencies:

1. State Government Departments of Education/Adult Education;
2. Voluntary Organisations;
3. University Departments of Adult and Continuing Education including NSS;
4. Nehru Yuvak Kendras.

Provision has also been made for necessary resource support needed by the implementing agencies in the areas of orientation of the functionaries, preparation of suitable materials and in monitoring and evaluating the progress of the work, through the State Resource Centres set up for this purpose.

The adult education programme is now being implemented in the following phases to ensure continuity in the learning process.

- (a) Phase 1 of about 300-350 hours spread over a year, includes basic literacy, general education with emphasis on health and family planning, functional programmes relating to the learner's vocations, and familiarity with laws and policies affecting the learners.
- (b) Phase 2 is of about 150 hours spread over a year to reinforce literacy skills and its use in daily life. This phase includes appreciation of science in relation to one's environment, components of geography, history and the country's cultural heritage, etc. It would also contribute to the improvement in all vocational skills.
- (c) Phase 3 is of about 100 hours spread over a year to achieve reasonable degree of self-reliance.

10.11 Role of Universities in Adult Education

Universities are no longer the ivory towers which are accessible only to the elite. It has been accepted that extension programmes should become part and parcel of a university's function in India. The UGC Policy Statement of 1977 underlines the need for extension activity as an important dimension of higher education comparable in importance to teaching and research. As a result, the universities and colleges have now become sensitive to the learning needs of the community.

11

DISTANCE EDUCATION IN INDIA

11.01 Introduction

The term distance education covers the various forms of study at all levels, which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but who, nevertheless, benefit from the planning, guidance and tuition of a tutorial organisation (Holmberg, 1977).

In a comprehensive article "On defining distance education", Keegan (1980) accepts Holmberg's definition and concludes that the main aims of distance education are:

1. The separation of the teacher and the learner which distinguishes it from face-to-face learning.
2. The influence of an educational organisation which distinguishes it from private study.
3. The use of technology media, usually print, to unite the teacher and the learner and to carry the educational content.
4. The provision of a two-way communication, so that the student may benefit from or even initiate dialogue.
5. The possibility of occasional meetings for both active and socialisation purposes.

Keegan's analysis of distance education appeals because of its emphasis on uniting teachers and learners and providing a two-way communication, by building a communication link between teaching and learning behaviour, in spite of the physical separation of teachers and learners.

11.02 The Advantages of Distance Education System

Distance education has a great sociological justification as it can help not only in extending education but also in equalising educational

opportunities. It can carry education to various and dispersed student populations even in remote rural areas, and it can provide instruction at all levels. In distance education, institutions can ensure proper organisation of instruction and motivate learners to evolve a careful study programme, it can prove a much more effective alternative by providing vocational education even to teachers and thereby speed up the expansion of education in the backward sections of society. Distance education offers a vast scope for innovations in teaching methods, greater variety of subjects, inter-disciplinary options, as well as qualitative improvements. Some academicians feel that technical and science subject cannot be offered by distance education. In fact, polytechnics in Russia offer full-fledged engineering courses. Technical universities and institutes in the US are also teaching technical courses by correspondence. Developing nations could find this system eminently suited to their needs as it is more economical than the formal system, when a large clientele is involved. Correspondence education system is a sub-system of the overall system of Distance Education, for its aims and characteristics are the same as those of Distance Education. When Correspondence Education involves all the media of technology such as the Radio, TV, audio cassettes, and video tapes to supplement the print media the system is called Distance Education. The nomenclature Distance Education is a new concept and is of recent origin. There was a time when the world correspondence education conjured up a method of learning, which seemed drab, second rate and the private pursuit of a small minority. But the concept has changed now and distance education has come to be recognised as an effective alternative system of providing education at all levels and to varied clientele, as it enables the individuals to fulfil one of the prime conditions of successful adult learning, he can learn at his own place, pace and time. It is a system that educates the worker without taking him out of the production process, thus helping him to earn while learning. It provides continuing education both for personal development and professional advancement. It has been particularly welcomed in developing countries as it has proved its effectiveness even under constraints, such as shortage of trained teachers, lack of buildings and paucity of equipment which could cripple any formal and conventional educational system. It actually frees the educational institutions from learning, chained to teaching in space and time and reaches out to the individual student who is actually isolated or wants to isolate himself. In spite of the cost of producing some modes of

correspondence instruction, there is evidence to suggest that it is a highly economical but effective alternate channel for providing education on such a large scale.

11.03 Definition of Distance Study

Distance study is a systematic method of training in which an exchange of materials and examination, usually by mail, is the main means of interaction between the student and the source of instruction. By its curricula, student body and objectives, it is clearly a part of adult and vocational education and, exchange between student and instructor distinguishes it from all other forms of self-study. Village (1958) points out that the distance courses are similar to all conventional techniques as it employs the three vital ingredients of typical learning situations, student, instruction and educational materials, but it differs in that the student and the teacher are physically separated and generally communicate in writing through mail. It serves the educational training needs of millions of people throughout the world, irrespective of their age, educational level and sex and satisfies their different needs — professional, vocational and recreational.

11.04 Need for Distance Study

The basic relationship between education and democracy and the vital role of education in the transformation of society through social change and economic development have been receiving increasing recognition everywhere. The quality of the individual human life can be refined and raised only through education. Both the society and the nation become the alternate beneficiaries of any human right, proclaimed in the inherent right of everyone to education and thus impart global significance to the provision and wide dissemination of education among all sections of people. This vast and growing population, newly conscious of their rights to education, pose a challenge to educational planners, which the Universities can scarcely ignore. To meet this challenge successfully, universities should respond within the bounds of their competence to the rising demands for distance courses.

11.05 Development of Distance Education

Higher education through correspondence received serious attention for the first time in India when the Ministry of Education appointed an Expert Committee on Correspondence Education in 1961 with the purpose of examining the feasibility of such a system of education in

Indian universities. In pursuance of the recommendations of this Committee, the University of Delhi established the Directorate of Correspondence Education in the year 1962-63 and offered B.A. courses through Correspondence as the pilot project. In the light of these observations of the Planning Commission, the Central Advisory Board of Education recommended further detailed study for correspondence courses by a small committee before a firm decision could be taken. The committee considered the need to secure flexibility in the country and considered all matters very carefully based on the experience of other countries such as Australia and the Scandinavian countries, the UK, the USA and the USSR. The response to the B.A. course offered by Delhi University was very encouraging and it added B.Com. course in 1970.

11.06 Recommendations of Kothari Commission (1964-66)

The Kothari Commission recommended that the opportunities for part-time education through programmes like evening colleges and for own-time education through correspondence courses be extended as widely as possible, in order to reduce capital costs of expanding higher education. By 1966 at least a third of the total enrolment in higher education should be through a system of correspondence courses. The Planning Commission took note of this recommendation and in the Third Five Year Plan made the following observations under the University Education. In addition to the provision in the plan, expansion of facilities for higher education, proposals for evening colleges, correspondence courses and the award of external degrees were also considered. The UGC sent delegations to the USSR in 1967-68 and 71 to study the scheme of correspondence education and get the necessary expertise.

The recommendations were:

1. Correspondence education is the only answer to the problem of increase in demand for higher education.
2. The need for diversification of courses in order to equalise and meet the ever increasing demand for higher educational opportunities.

The special emphasis in the Fifth Five Year Plan on the expansion of programme of non-formal education including correspondence courses, obviously called for further development of the scheme of correspondence courses. Prompted by the success achieved by Delhi and Punjabi Universities, a number of other universities instituted the

programme of correspondence courses due to the increasing demand and popularity.

11.07 Distance Education—Present Scenario

At present, 35 universities in India, not to speak of innumerable private institutions have started undergraduate, post-graduate, legal and teacher training courses, with the basic aim of providing a “second chance” to those who have missed the opportunities of higher education in our society, in their early years, due to some reason or other.

Forty-two recognised institutes and an equal number of private institutes are providing distance education on a wide range of subjects. These institutes work in isolation with duplication of efforts. Correspondence is the mainstay of distance education. Modern communication facilities, though available, are not utilised. At school level there are five boards which give correspondence education at the secondary and higher secondary level. Total enrolment is about 62,000 which is 0.30 percentage of the total enrolment at this level. All institutes follow the same syllabi in Arts, Commerce, Languages as prescribed by the respective boards. The teaching of science is negligible and there is no vocational stream. An open school gives similar courses and also teaches vocational courses like typing and tailoring. At the post-secondary level there are 34 institutes with a total enrolment of 2,31,604 in 1986 (UGC Report 1986) which is about 5 per cent of the total enrolment at this level. This is much lower than the target of 33 per cent suggested by the Education Commission (1964-66). All follow the same syllabi prescribed by universities.

Professional courses are given at the diploma, degree and post-graduate levels in Education, Public Administration, Management, Journalism, Law etc. Enrolment is the highest in Education. Only one institute gives an in-service Bachelor of Technology course. The departments of extension education in the Five Agricultural Universities give skill-oriented courses in agriculture and animal husbandry to farmers in rural, hilly and tribal areas. In addition, many private institutes prepare students for all-India competitions and entrance examinations for medical, technical, agriculture and banking institutes.

11.08 Objectives of Distance Education

Gandhiji pointed out that “Education covers the entire field of life, there

is nothing howsoever small which is not the concern of education." It is no longer disputed that one of the models for meeting the needs of educational is the open system. It is relevant to quote Mr. M'bow, the Director General of UNESCO: "Educators are on the lookout for alternative models which could reduce the physical, social and psychological distance, which separate knowledge and the learner, in particular (they) have turned their attention to the possibility of using communication media to extend education in both space and time and to diversify its objectives, content and form."

The major objectives of the Distance Education programmes are as follows:

- "1. To provide an alternative method of education to enable a large number of persons to acquire knowledge and improve the professional competence.
- "2. To impart education at the individual's convenience, and to help the individuals utilise their leisure for educational purposes."

Ministry of Education, 1978

Goals may be derived from various documents on Distance Education like the Education Commission Report (1964-66), Parthasarthy Committee on Correspondence Education (1971), All Indian Seminar on Open Learning (1970) and National Policy on Education (1986). The gist of all these reports is that we should expand and improve distance education as a vehicle for lifelong education, equalising educational opportunities, and supplementing the existing formal education for the benefit of those who cannot attend school and colleges, by fully utilising all the modern communication technologies.

11.09 Availability of Resources

The country has sufficient expertise in the distance education so far as the print and correspondence modes are concerned. But we need an inventory of experts, institutions and innovative practices to be able to plan in a coordinated manner. The country has enormous facilities and scope for using word processing, radio, television, audio tapes, video tapes, microcomputers satellites, telephones, computer-based education and other interactive technology (India 1986). But Distance Education institutes have neither the infrastructure nor the trained personnel. Distance Education has been treated as an adjunct to the formal system. The policy that it should be self-supporting has affected the quality of

courses and student services (Mulay 1984). The setting up of the Open School in Delhi, the Open University at Andhra Pradesh and the Indira Gandhi National Open University herald an improvement.

11.10 Communication Technologies

The inherent assumption of the distance group of strategies is that the learner will be at a physical distance from the teacher. Therefore, the provision of communication over the distance between the teacher and the learner is a distinguishing characteristic of the group of strategies. Thus the correspondence education process integrates correspondence with the mainstream of education processes. In today's world, the learner, young and old alike, is deluged by a communication barrage. In addition to the printed materials of innumerable varieties, today's society may employ the radio, video cassettes, video disc, telephone, computer, satellite, TV and a wide range of other technological devices which arouse great interest in educational circles. Each device, of course, is a technology with its own unique characteristic and each may be used singly or in combination with other technologies, the combined impact of which engulfs the learners. Wedeymeyer (1963) says that "Institutions should make special efforts to make the correspondence education programme attractive by combining it with other media or formats, as this approach will strengthen the correspondence programme." Hutchins (1968) rightly states that 'Technology has freed education from the limitation of space, time and staff'. These communication technologies have many and varied implications for correspondence education. For, the space or place for learning need not be restrained to a specific period of the day and the expertise of the instructors can be made available to learners far and wide as is the case in correspondence system. Balts (1982) provides a fascinating review of the changing role of media. He records a clear trend away from broadcasting in distance education. Perration (1982) finds this end of going away from broadcasting disquieting and argues that the world's massive educational needs require recourse to the mass media and it is urgent for educators to broadcast more. Draper (1982) hopes that the radio will have a major educational role in the development of the world. Bates (1982) concludes that audio-visual media are currently under-exploited in distance learning systems, partly because few of the staff of educational institutions have training in media though the range of audio-visual media suitable for distance education is rapidly increasing. Distance education is a land of contrasts. Nowhere are these

more evident than in the technology used by institutions in different countries. The use of audio visual media is an important element of the transformation of correspondence education into distance education. Shah (1982) argues that since radio and T.V. are expensive and of questionable effectiveness, developing countries should stick to simple correspondence education. But Perraton (1982) reports on the successful use of radio in countries such as Tanzania and Draper (1982) sees an important future for this medium in the developing world.

Computers are already an important technology in distance education. Baath (1982) describes how this application has been developed into a system of computer assisted tuition that is more popular than correction and comment by a tutor. Success with a similar system is reported by Phillips and Young (1982) and Fritsch (1982) has applied the same principle for counselling and guidance. A less controversial technology for interaction with students is the telephone. Its use is also steadily expanding. As we move into the mid 1980's, it will be increasingly difficult to discuss an individual medium in isolation. TV, telephone and computer are merging into a single technology called either 'communication' or 'telematics' depending on where one lives. Madden (1982) suggests that this fusion of technologies is better described as an "intelligence revolution than an information revolution".

Video-discs and Video-cassettes

Broadcast distribution is not adequate for programme distribution since it forces the learner to adapt to a schedule that may have been drawn up thousands of miles away. The viewer has no control over the speed of presentation. Some programmes may require a second or even a third viewing for full comprehension which is impossible with broadcasting. Video cassettes and video discs are superior in this respect from a pedagogical standpoint. Video cassettes are used in most courses to back up transmission, rather than as the main system of distribution. Group use of video cassettes in study centres enables students to draw out much more from the programme than watching in isolation.

Audio Cassettes

Audio cassettes are highly valued by students and listened to seriously whether they are deemed essential or only for enrichment. Many students listen to tapes more than once, take notes and use them in preparation for assignments of examination revision (Fritsch, 1978;

Leslie, 1979 and Gough 1980). The motivating value of audio cassettes and their value in reducing feelings of isolation is emphasised by a substantial number of students. In a majority of courses, they are ranked as the most useful component after the correspondence texts. The features that appeal to the students are their convenience (they can use cassettes whenever they wish to study), the control they have over them (they can play parts of the cassettes as many times as they need), and their informality. Students comment that cassettes are like having a personal tutorial with the course author in his own room, a quality that is lacking in a radio programme, however skilfully they are made. Audio cassettes integrated with the course that author has given in his correspondence material is a major area for development in distance education. They are cheap, easy to make and control, convenient for students and above all educationally effective (Durbridge, 1981).

Cable and Satellite TV

Satellite TV will give better rural coverage and a uniform national service but commercial and financial structuring will result in the satellite being received by only the more wealthy sections of the society.

Telephone Teaching

Telephone tuition seems to be the only practical way of providing a two-way interactive tutorial to students of distance education systems who are often scattered or isolated. This is being successfully utilised by the Open University. Time, quality and connection is a problem in reaching rural localities. Despite technical difficulties there are enough examples of successful tuition by telephone to suggest that well prepared, well trained tutors supported by committed administrators will usually succeed (Robinson, 1979).

View Data and Teletext

Development using the TV screen for the display of graphical information will have important implications for distance education systems. There are two kinds of systems-teletext and view data. Teletext uses TV for broadcasting textual information and view data systems connect the TV set with the telephone system (Telidon, Optel, etc.). Though teletext lacks interaction, videodata systems appear to have more educational potential. The combination of telephone with TV provides access to potentially limitless sources of information and

computing power. The organisations can set up their own view data computer system. The Open University is experimenting with its own view data system, called 'optal' to enable the staff, students and tutors to communicate from any where in Britain (Baesich, 1981). View data is clearly a major new technology, which has the potential for rapid updating of information and for computer-aided instruction. Of these innumerable audio-visual materials available, only radio is being used in India in addition to the printed lesson units. Each of the communication media can and do offer distinct characteristics. The media do differ individually, in the way they effect instructional messages, according to their inherently different characteristics. Hence, the medium alone is not the instructional message of a course in the teaching-learning situation, for a medium may transmit a message of its own, in addition to the intended institutional message. For example, the learners who have grown up in a world of radio and television expect not only quality of presentation but of content as well. If the previous experience has been lively, vivid entertainment via radio and television, then the learner would experience a real sense of boredom from a radio or televised presentation, overloaded with information, metered out mechanically. The new communication technologies are 'largely supplementary' to the primary media of instructions, the text book and the teacher. The existing curricula and techniques are merely translated into the newer media, in order to make the correspondence education practices effective, but they have to be altered or changed to suit the media, in a systematic manner.

11.11 UNESCO on Distance Education

From Elsinose (1949) to Tokyo (1972) speaks about the use of mass-media and says that "the mass media should be more extensively and expertly used to ensure economic, social and cultural development. The TV programmes must be related to the total 'climate' (socio-economic, political system) in which adults, literates and non-literates live because the supporting environment is a prerequisite for making non-formal (distance) education a success.

Adults interested in learning, face many problems. They do not get what they want, from where they want and when they want. A detailed research is needed to find out whether the product (learning) is really wanted by the customer (students) who is the focus of attention. The product should be prescribed in a form most likely to be accepted, in a place where it is needed and at a time when potential customers are

most likely to be interested in making the purchase. There should be adequate publicity through appropriate support systems, aiming at customer satisfaction. When the product becomes outdated, irrelevant and meaningless, the methods become drab, tedious and ineffective, the place becomes dull and forbidding, then the end product automatically becomes ill-equipped for what it is intended.

If the needs and interests of students are given priority, learning support systems become an essential component for the delivery of instruction, for instruction involves gaining and controlling attention, stimulating recall, guiding, learning, providing feedback, arranging for remembering and assessing outcomes. These functions are performed by the media not in isolation, for no single medium possesses properties which are uniquely adapted to perform one or a combination of instructional functions. The fusion of technologies is described as "intelligence or information revolution". The factors that should govern the choice of delivery media are their availability, accessibility, acceptability, validity, economy and the objectives of the learning. The delivery system need not be only technically effective but also sufficiently enriched with the human elements of the learning process, in the form of instructors, counsellors etc. The arrangement of instructional conditions is still the key to effective instructions, regardless of the medium employed, for as far as learning is concerned, the medium is not the message. A carefully designed combination of media as learning support systems may be required to achieve the kind of instruction that is most effective and the properties of each system must be exploited to the maximum advantage. Each institute should evaluate constantly the success or failure of the support systems involved and evolve new and innovative techniques of imparting instruction. Only this will place distance education in India on a sound footing, comparable to the developed countries.

12

ROLE OF SATELLITE IN EDUCATION

12.01 Problem of Access

Among the different media exploited for education and entertainment, television occupies the first place, being a novel and attractive medium. At present, three-fourths of the estimated five million TV sets in the country are located in the metropolitan cities and the remaining are owned by the rich. A very small number (may be less than 6,000) TV sets are available for community viewing, where the majority of unfortunate adults live, who need civic education, legal literacy, functional literacy, political, health and family welfare environment, education etc. Those who own a TV set receive mass media messages and become 'information rich', compared to these who become 'media poor'. Hence an equitable distribution of this new resource information is necessary for creating an egalitarian society in the future. In addition, some basic structural changes should be made by way of programmes, for TV to be meaningful for adult education.

12.02 Advantages of TV

TV does not discriminate between the rich and the poor, the old or the young and the rural or urban viewers. In fact, it cuts across several barriers which are otherwise difficult to break by other means.

TV helps in equalising "knowledge gap" between literates and illiterates (Agrawal, 1981), that is, formal education is not a necessary condition to learn and gain knowledge from TV. Illiterate persons must not be equated with the uneducated and they are also capable of learning from TV. It has also been found that more than men women learn and gain knowledge from TV education (Agrawal et.al 1977).

About a quarter of a century ago, TV was introduced after much discussion on the need for social education and for improving the civic

sense of the people in Delhi. As it grew in scope and coverage "non-formal" education was introduced, for communicating agricultural information to the farmers in 80 villages in the Union Territory of Delhi (Krishi Darshan, 1969). Since then, Satellite Instructional Television Experiment (SITE) was successfully conducted in 1975-76 and now more than 70 per cent of India's population has potential ability to receive TV signals in their homes.

The Indian Space Research Organisation (ISRO) under the department of Atomic energy plans, manages and executes the nation's growing activities in Space Science, Space Technologies, and Space Applications. Indian Satellite "Rohini" was launched by SLV-3 Rocket on 18 July 1980 from Trivandrum. Another Rocket of SLV-3 type known as Rohini II was launched from Sriharikota on 31 May, 1981. Efforts are under way to initiate manned space flights since 1984, for which purpose, Indian cosmonauts are being trained in Soviet Union. In Soviet collaboration, India sent into space her first astronaut Sqn. Ldr. Rakesh Sharma. Indian satellite, INSAT-IB, was launched into temporary low earth orbit on August 31, 1983. It received commands, from master control facility located at Hassan, in Karnataka. All the manoeuvres were carried out exactly and successfully. Its threefold functions are: weather surveillance, beaconing of telephone and television calls across the country from its outpost, above the equator. INSAT-IB is the ninth Indian satellite to be shot into space. Earlier five other satellites have been launched from abroad. After the initial snag of solar array getting stuck, INSAT-IB has been functioning successfully. New opportunities have been opened in telecommunication and TV utilisation of weather forecast. Through INSAT-IB, the entire population has similar capacity to receive TV signals through direct broadcast system.

The launching of INSAT-IB marks the beginning of the slow communication revolution in India. The communication satellite links every family, village and institution through the TV network to the educational, cultural and developmental information transmitted through the network. This communication network would become extremely versatile and powerful with the utilisation of computer technology for information processing. The microcomputers and communication technology are creating a worldwide information base that may be made available easily and economically in the near future to every zone in the country.

Through the use of these educational technologies, the quality of learning and the degree of mastery can be increased, the time taken to attain the desired goals can be decreased, the capacity of teachers in terms of the number of learners taught can be increased, the costs can be reduced without affecting the quality, the best teachers may be made available to all and education can be offered in their own place, pace and time.

Space scientists and engineers have claimed SITE (Satellite Instructional Television Experiment) a singular success (Pal, 1978). Today it is possible for all parts of the globe to be equi-distance for receiving television messages through direct reception system. SITE was a learning experience to provide planning inputs for future national satellite-based TV system in India.

The SITE was conducted in 2,330 villages scattered in 20 districts and in six states of India, known as clusters, for a period of one year, beginning from 1 August 1975 to 31 July 1976. Specially pre-recorded TV programmes were telecast using Applications Technology Satellite-6 (ATS-6) from Ahmedabad and Delhi earth stations. SITE was one of the largest techno-social experiments ever conducted in human history. In the field of rural education there is no parallel to SITE in size, technology and sophistication. The villagers who participated on SITE had no previous TV exposure of any kind. Taking into account the relative dearth of external communication in rural India, SITE was a leap forward in the use of advanced technology for instructional purposes.

SITE has been conceived as a continuing activity rather than a terminal one. The basic rural educational and developmental goals of SITE were to improve general primary school education, provide teachers training, help to improve agricultural practices, health and hygiene, nutrition and contribute to family planning and national integration.

12.03 Telecast for School Children

The 22 1/2 minutes programme each in Hindi, Kannada, Oriya and Telugu were telecast on each school day from 10 a.m. to 11.30 a.m., for the children in the age group of 5-12 years in the six states of Karnataka, Orissa, Andhra Pradesh, Bihar, Rajasthan and Madhya Pradesh. On an average, more than two programmes of 10 minutes duration were telecast; maximum time (54%) was devoted for Science education.

They were originally prepared in Hindi and later dubbed into the other three languages for telecast. Other broad areas covered were health and nutrition (8%), national awareness (9%), entertainment (13%), teaching handicrafts (3%), social and religious studies, (4%) biographies of great men (4%), emergency propaganda (2%), and others (3%). As a whole the evaluation indicated positive gains as a result of multi-media package training. It is estimated that approximately 40,000 teachers were trained in the two training programmes.

12.04 Impact on Adults

The two-and-a-half-hour evening programme was telecast every day during the SITE year in Hindi, Kannada, Oriya and Telugu. The programmes were broadly categorised into news in Hindi from Delhi for all six, clusters and other information on agricultural and developmental activities as part of the half-hour national programmes, instructional programmes on agriculture, animal husbandry, family planning, health and nutrition (these programmes are called "hard core") and recreational programmes — mythological, musicals, dramas and songs (called "soft core") which contained some social message. A few children's programmes like a children's movie on the last Sunday of each month was also telecast.

The males in the younger age group (24 years and less) and females in the middle age group (25-39 years) were frequent TV viewers. They were illiterate and belonged to poorer sections of rural society. It seems that TV in-community viewing situation helped to close the information gap between the "have's" and "have nots". On the whole, as a result of TV more females than males gained in health innovations and family planning. The information received from TV on health helped in crystallising the ideas, changing and reinforcing the existing beliefs and adding new knowledge. TV viewing led to higher extension contact among cultivators. But the desire for a small family shown by literates were more than by illiterate viewers. The presence of TV directly triggered the process of change. A change in behaviour was observed in the areas of agriculture. The 20-point-programme awareness increased. Overall modernity, both attitudinal and behaviour was higher among frequent female viewers compared to frequent male viewers. Overall modernity, health innovations and political socialisation were because of differential exposure to TV.

While producing these programmes, the 'Core Philosophy' of a

development programme must be clearly spelled out and at the same time local forms, idioms and art traditions must be fully utilised to indigenise the medium. The future lies in the utilisation of the medium in individual cultural settings rather than accepting it as a universal medium for culture specific use.

There is a myth that only sophisticated technologies are capable of providing high quality programmes. Sophistication in technology is needed but it is not a necessary condition to achieve the desired goal of educating the masses. Instead, the will, the concern, and the serious interest of the media practitioners to utilise the communications technology for rural education and development are more important. Technology by itself is no panacea for any malady; its appropriate use for rural education and development would alone yield the desired results. Hence, emphasis should be for creating the 'will' rather than the technology alone.

Training of school teachers through TV was found to be a successful exercise. One of the major needs for rural development is continuous updating of the knowledge of those who are involved in it. In this area, satellites have multiple capabilities of training a large number as experienced during SITE and thereby making it economical.

TV may be considered as a substitute at a time when traditional arts are fast disappearing. This calls for larger investments in community TV in rural India as it is an important audio-visual medium.

Thus satellites can multiply classrooms and supplement face-to-face classroom instruction. As a non-formal and distance mode of education to reach people in remote rural areas it is the ultimate, as SITE experiment has proved. Imagination and creativity are the limits for the use of satellite in educating the masses.

13 TRIBAL EDUCATION

13.01 Introduction

For centuries together, the tribal communities of India have lived in isolation, away from civilisation and preserved their cultural uniqueness; but with the rapid development of transportation and communication and industrialisation, it has now become difficult for these tribal communities to isolate themselves any longer. In fact the question of isolation to be maintained does not arise. Formal education is rather a very recent origin in the tribal world. That does not mean that the tribals living in different parts of the world were without any education at all, rather they had some sort of education. For, education means the transmission of knowledge, information and skills that a community has acquired from one generation to another generation by any means, orally or verbally. According to Skinner, "Education is the phase of social process, which is fostered by society for the purpose of fitting its members for life in groups." Swami Vivekananda says, "Education is one by which character is formed, strength of mind is increased, intellect is expanded and by which one can stand on one's own feet." "The great aim of education is not knowledge but action" (Spencer, 1958). And "Education is in truth, the social mechanism of initiating the growing generation into their cultural heritage, and the use thereof, according to traditional methods. Thus, education may be called the preparation for the discharge of adulthood roles. It may be looked on as a process of recruitment which makes it possible for one to impersonate the various roles normally outlined in one's culture. Taken as such, education cannot be confined to reading and writing within the four walls of a school" (Majumdar, 1956). Based on these definitions, we can definitely conclude that there have been some sort of agencies and institutions, among the tribal people, which have been providing this sort of education.

In the past, there have been three different approaches to the aspects of tribal welfare. One school of thought was "to put a stop to all contacts and preserve the aboriginal tribes in their pristine beauty and purity, completely isolated from the rest of India" (Bhuria, 1978). As a result of this school of thought, they advocated the policy of 'National Park' which allowed tribesmen to live their own life without any interference. The second school of thought had the extreme view and pleaded for 'Complete assimilation' (Mazumdar, 1960), of the aboriginal tribes into the main national culture. The third and final school of thought, including a number of educationists, sociologists and social anthropologists, strongly believed that the problems of tribals can be solved neither by total assimilation nor by pursuing the policy of complete isolation of the tribals from the mainstream of national life, but only by carrying out the policy of integration of tribals into the Indian society. Even Jawaharlal Nehru, based on his experiences and exposure to the tribal people in different parts of the country, strongly emphasised that the tribal population should be integrated with the rest of India without any discrimination or disintegration of their social distinctiveness. To quote, "I came across the tribal people first, rather distantly in various parts of India other than the North-East Frontier. These tribes were the Gonds, the Santals and the Bhils. I was attracted to them and liked them and I had a feeling that we should help them to grow in their own way. Then I came in touch with the tribal people of the North-East Frontier of India, more specially of the hill district of Assam. My liking for them increased and with it came respect. I felt we should avoid the two extreme courses, one was to treat them as anthropological specimens for study and the other was to allow them to be engulfed by the masses of Indian community... political and economic forces impinged upon them and it was not possible or desirable to isolate them. Equally undesirable, it seemed to me, was to allow these forces to function freely and upset their whole life and culture which had so much of good in them. Above all, I hope, there will be no attempt made to impose other ways of life on them in a hurry. Let these changes come gradually and be worked out by the tribals themselves."

"The only practical solution of the tribal problem in the present situation would therefore lie in the integration of the tribal people in the national democratic set-up of India. The Indian nation would thus be a vast mosaic in which the numerous ethnic and cultural groups would

constitute elements of diverse colours and patterns. But this national mosaic would not be of a fixed and rigid pattern. There would always be scope for adjustment and re-adjustment, integration and re-integration." For in a democratic country like India, integration is the only solution of tribal problems. With this idea in view, the Government of India has been pursuing a policy of slow modernisation of the tribal communities. The existing institution of village dormitories is a sort of training institution of unmarried boys and girls of a widely distributed Afro-Asiatic cultures. Grigson (1938) says, "It is a school for training the youth of both sexes in conjugal and social duties and the lore of the clan." This dormitory system exists from Bhutan to New Zealand and from Marquesas to Niger. It is common among the Jakuns of Malaysia, the Battacks of Sumatra, the Irgots of the Philippines, the Bcroro of Brazil, and most of the American tribes. In India, both bi-sexual and mono-sexual types of dormitories are found among almost all the tribal population. The tribal people in each geographic location have given different names for their youth dormitories. These youth dormitories may be a survival of the communal houses which was the initial stage of development of homes in which they jointly lived. They were designed to prevent, "incest, to save the children from witnessing the primal scene, to save the parents from being watched while engaged in sexual congress by young children. It may be pointed out that the wide distribution of this institution among hunting and nomadic tribes is highly significant. The need of protection of the tribal group from the ferocious denizens of the forest as well as the alien and the hostile group who may prey upon them for women or for cattle or for both is obvious. The ablest hunters have, therefore, to keep together for this purpose. This function often requires keeping awake during a good part of the night. For this purpose, bonfires and fun and frolic must have served as good accompaniments and also as inducements" (Majumdar, 1956).

The youth dormitories of the different types in India have many common features with only minor variations among them. The people are more or less compelled either directly or indirectly, to become members of the dormitory after attaining a certain age, by the community, and thus the membership is not voluntary. Existing members welcome new members with an elaborate initiation ceremony. Only members are allowed to enter the dormitory which is housed in a specially built building. Every dormitory keeps a totemic emblem, made of earthenware or wood. If not, they are carved on the wall.

Membership ceases soon after marriage. In the evenings, members have a get-together and the dormitory serves as a place of recreation. They dance, sing folksongs, play, tell folktales and solve riddles etc. during such get-togethers. The senior members of the dormitory are well-versed in tribal lore and tradition, and it is their duty to train the junior ones, who are expected to obey their orders and their commands. The officers of the dormitory are selected from among the senior members of the dormitory and it is their responsibility to maintain discipline and a spirit of cooperation. These officers and the members together cooperate and assist in almost all the activities and functions of the village such as marriage, agricultural activities, and house building. Activities inside the dormitory are kept strictly secret. Dormitories educate the younger generation regarding the norms and values of the tribal life and their culture, through different methods such as storytelling, festivals, religious ceremonies and solving riddles. Appropriate instructions in religious socio-economic, political and administrative spheres of their life are provided. Visitors are also welcomed and hospitality is extended to them.

13.02 History of the Tribal Education

Education in ancient India was more or less a privilege of the middle and higher classes and there were no specific efforts made to provide education to the lower classes such as aborigines, Scheduled Castes and Tribes. The committee on untouchability, economic and educational development of the Scheduled Castes (1969) appointed by the Government of India states: "The school in ancient times were located in temples and denial of the right to enter the temple due to acute untouchability practised in those days, deprived these people of facilities to attend schools. The society considered education for backward class children as a social offence. As a result, the education of the unfortunate Scheduled Castes and Tribes, who are otherwise called the depressed class was denied and they remained illiterate and backward throughout these years." Prior to 1950, our country had no significant programme for the educational upliftment of the tribals. After the enactment of the Constitution of India, it had become the responsibility of the Government to raise the level of literacy and the education of the tribals as it was realised that the nation's development depended not only on the re-orientation of the resources but also on the development of the human resources. As an external agency, the formal education did not create any interest or impact on the tribals. As the

system of formal education was not based on the ethnocentric ideas and their ways of life, the tribal community either directly opposed or remained silent and indifferent to this type of education. While there was good investment, there was not much development in the education level of the tribals. For any developmental programme depends ultimately on the economic conditions of the community for its success. Economically, each tribe is specific and the variation is area-specific. Vidyarthi (1975) says that the tribals may be broadly grouped under six categories such as, the hunters and gatherers, artisans, sifting agriculturists, settled cultivators, pastoralists, and industrial labourers. It is found that most of the tribals have become bonded labourers and their very survival has become a threat. Hence, formal education has becomes irrelevant and non-effective. Elwin (1963) points out that "for a tribal family to send its grown-up boy or girl to school is essentially a matter of economics and entails dislocation in the traditional pattern of division of labour. Many parents cannot afford to send their children to school. The economic and the living conditions of many tribals have not materially changed since independence". (Mahapatra, 1982), in spite of the Government spending more money, equipment, resources and technical know how. Even the incentives such as mid-day meals, uniforms, free learning materials, and pocket money failed to attract the tribal children to schools. In many cases it is the distance of the schools from their hamlets that was a barrier to their attending the schools.

Also the ideologies transmitted by modern education is conflicting with the traditional culture of the tribals as each religious group teaches its own ideologies through education. There are instances where due to religiosity, a section of an ancestral village abrogated the socio-cultural interaction with their kith and kin. As a result, there is no uniform system of imparting education to the tribals. The medium of instruction is another factor which stands in the way of tribal education for the spoken dialect differs very much from the teaching dialect. This creates a problem of understanding and hence leads to lack of interest and motivation, leading to dropping out of the formal system. The contents of the teaching materials also act as a dissuading factor on account of their irrelevance. In addition, the timing of the school does not suit the seasonal engagements of the tribals. As children are also working, during peak agricultural seasons, i.e., harvest seasons, children absent themselves from schools. If they do not find their own reality, they feel alienated from the formal education system due to its stereotyped image and ideology.

13.03 Constitutional Safeguards for the Education of the Tribals

Moneylenders, contractors, zamindars etc., exploited the tribals of India by grabbing their land. "Tribes witnessed, experienced and suffered together exploitation which they were subjected to and the consequent aftermath of socio-political movement" (Verma *et al*, 1980). Raha and Dass (1982) observe that the Scheduled Tribes present a wide spectrum of not only varying levels of cultural development but also a great variety of ethnic and linguistic social organisation, ritual beliefs, values, and so forth. All these traits taken together impress upon the relative backwardness of the tribal world in contra-distinction to the non-tribal societies. The Constitution of Free India made a number of special provisions with the intention of safeguarding the interests and rights of the Scheduled Castes and the Scheduled Tribes, who formed about 22 per cent of the total population of India. The major objective was to accelerate the development of the tribals and bring them as early as possible up to the level of the general population. Pandit Jawaharlal Nehru in the very first session of the Constituent Assembly, in December 1946, in his declaration of objectives had mentioned, "wherein adequate safeguards shall be provided for minorities, backward and tribal areas and depressed and other backward classes." This resolution was adopted during the second session of the Parliament in 1947.

Article 46, under the Directive Principles of State Policies in Part IV of the Constitution, reads as follows:

"The State shall promote, with special care, the educational and economic interests of the weaker sections of the people; and in particular, of the Scheduled Castes and the Scheduled Tribes and shall protect them from social injustice and all forms of exploration."

For easy implementation of the Directive Principles, the Constitution provides several safeguards in 18 Articles in order to protect them from social and economic exploitation and injustice and also to improve their social, economic and political development. Article 23 of the Constitution prohibits traffic in human beings and 'begar' and other forms of forced labour. Article 19 states: "All citizens have the right to acquire, hold and dispose of property." Clause 5 of this Article prevents the lands of tribals from passing into the hands of non-tribals and also exercises control over the operation of moneylenders in these areas. Also special provisions are made in the Fifth Schedule

regarding the administration of scheduled areas with a concentration of Scheduled Tribe populations.

Article 16 of the Constitution provides for equality of opportunity in matters relating to employment under the State. The State shall have the power to make any provision for the reservation of appointment of posts in favour of Scheduled Tribes. 7 1/2 per cent of the vacancies are reserved for tribals in case of direct recruitment by examinations conducted on All India basis by the Union Public Service Commission. States reserve a minimum of 5 per cent seats for the tribes. Also the maximum age required is relaxed by five years and the fees are reduced to one-fourth. Similarly a certain proportion of seats have been reserved in the Lok Sabha and the Legislative Assemblies of the States, for the tribals.

13.04 Tribal Education

The Constitution of Free India offers all its citizens, individually and collectively, some basic freedoms, guaranteed in the Constitution under the Fundamental Rights such as, right to equality including equality before law, prohibition of discrimination on grounds of religion, race, sex, caste or place of birth, and equality of opportunity in matters of employment. Certain protection and safeguards are also provided for the Scheduled Castes and Tribes and other backward classes by the Constitution in order to promote their educational and economic interests and to eliminate the social disabilities, they have been subjected to. After independence, the country was covered by the community development programmes and national extension service projects during the First and Second Five Year Plan period. During the Second Plan Period (1956-61), 43 special multipurpose tribal blocks were established for the intensive development of the tribal areas all over the country. The main purpose of these tribal development blocks was to effect rapid improvement in the social and economic standards of the tribal people by selecting, especially the under-developed but compact areas for multi-pronged development. Different aspects relating to agriculture, communications, cooperation, education, health, housing, training and employment were undertaken in these tribal development blocks.

13.05 Other Benefits

To neutralise the effects of inequalities of opportunities to some extent and to mitigate the economic hardships, the tribal students are provided

with scholarships by the Central and the State Governments. Three types of scholarships meant for pre-matric, post-matric and for technical education are offered. Students in classes from 1 to 5 are provided some nominal financial assistance once a year. In addition, tribal students are also given other benefits such as, exemption from tuition fees, free textbooks, learning materials and free clothes. Mid-day meals are also provided by CARE (Co-operative American Relief Everywhere) programme for all children, both tribal and non-tribal.

13.06 Non-formal Education for the Tribals

Over ninety per cent of the tribal population is outside the formal system of education which indicates the unsuitability and irrelevance of the system. Formal education alienates them from their families and the social environment and stands in the way of their earning. Hence it has failed to create any impact on the lives of the tribal people. An alternate strategy with a vocational bias such as the basic education propounded by Mahatma Gandhi would be most suitable. The principle of basic education is based on a sound psychological background and on the philosophy of Indian life. Basic education has in its working principle enough scope for the objective of the achievement of a well integrated personality. Tribal children are naturally interested and skilful in manual work. Hence basic education being a craft-centred one, will suit their temperament. Basic education is not only craft-centric but also life-centric, both individually and collectively and it makes an attempt to correlate the physical and social environment with the life of the child. The basic idea is that the educational programme should serve the needs and requirements of the learners and should be flexible and functional. Tribals are poor and suffer from many social disadvantages and hence the educational programmes should improve their income and raise their status and standard of living. Hence the contents should be flexible, diversified, and learner-oriented. It should be participatory in its approach and must be an integral part of all developmental programmes of the tribal region. Vocational education and not formal education is a necessity and literacy will be a component of these programmes. Alienation of the tribals must be prevented and they should be brought into the mainstream of Indian culture.

13.07 Wastage in Tribal Education

Tribal children lack the knowledge of the regional languages and hence instruction in schools must be through their mother tongues. Poverty

among Scheduled Tribes works as a great hindrance to education and hence they should be given all facilities. The parents' attitude towards education ought to be changed. More schools should be opened in the tribal areas to prevent the children from walking long distances. The teachers should be specially trained and qualified to teach the tribal children. Vacations and holidays should coincide with agricultural and forest operations and social festivities to prevent wastage and stagnation among the tribals.

India has the largest tribal population in the world. In 1981, the total tribal population in India was 51,628,638 which is 7.53 per cent of the total population. The tribals are not a homogeneous group and there are 42 different tribes spread over different states of India. Areas with sizable tribal population comprise about 15 per cent of the total geographical area of the country.

13.08 Socio-economic Status of Tribals

The tribals are characteristically a deprived and disadvantaged lot. In spite of the above-mentioned numerous special safeguards provided for them in the Indian Constitution and several developmental programmes undertaken by the government for their upliftment, all the socio-economic indices for tribals are well below the national average. In 1983-84, about 57.15 per cent of the tribals lived below the poverty line as against the overall national figure of 37.4 per cent and a figure of 50.92 per cent for the Scheduled Castes. The percentage in rural areas was slightly higher at 58.4 per cent (P. Singh, 1986). (Table 1)

Table 1: Salient Facts about India's Tribal Population

	(1981 census)	
	<i>Tribals</i>	<i>National</i>
Population	51,628,638 (7.53%)	685,184,692 (100%)
Per cent of population living in rural areas	93.80	76.65
Percentage share of the total urban population	2.03	100
Percentage share of the total rural population	9.54	100
Per cent living below the poverty line (1983-84)	57.15	37.40
Literacy	16.35%	36.23%
sex ratio	983	935

According to the 1981 census, the illiteracy rate for tribals was 75.48 per cent among males and 91.96 per cent among females. For the country as a whole, the comparable figures were 53.3 per cent for males and 75.2 per cent for females. In rural areas, the corresponding figures were 59.1 per cent for males and 82 per cent for females. Among the Scheduled Tribes, the proportion of illiterate females declines marginally between 1961 to 1981 from 96.84 per cent to 91.96 per cent, but their absolute numbers rose from 14 million to nearly 23.5 million.

In a recent survey of health status, attitudes and habits of tribals in two rural blocks of Ranchi district of Chotanagpur (Singh *et al*, 1987) it was found that:

- "1. The tribals are illiterate. About 81 per cent of the total population is illiterate, the percentage for women is as high as 95 per cent.
- "2. The tribals are poor. 58 per cent have no income or have income up to only Rs.200/- per month. Another 31 per cent have monthly income between Rs. 201 and Rs. 400/-.
- "3. The tribal women marry at an early age. The mean age at marriage is 15 years, which is lower than the national average for rural women (17 years).
- "4. The tribal women are more fertile than the average women. The average number of children born to a tribal woman is about six, higher by two than the national average.
- "5. The tribals are deprived of bare basic living facilities. They have about two living rooms for an average of about seven persons. Less than 1 per cent have bathroom, septic latrine and electricity, only 22 per cent had well.
- "6. Tribals are unhealthy and ill. 29 per cent of the families had some kind of illness at the time of survey."

Thus the gap between various indices for males and females is higher among the tribals than among the general rural population. (Table 2)

Tribal women remain the most exploited and vulnerable segment of the population because of their isolation, poverty, general social backwardness and special cultural problems (Table 3). Special programmes by governmental and voluntary agencies for the female population among tribals have made little practical impact, though levels of awareness seem to have risen.

Table 2: The "Sex Gap" in Tribal Literacy (Comparative national figures are given in parentheses)

	<i>Male</i>	<i>Female</i>
Population (1981 census)	26,038,535	25,590,103
Percentage of population living in rural areas	93.57	94.03
Literacy Overall	24.52% (46.62%)	8.04% (24.73%)
Rural	22.94% (40.80%)	6.81% (18%)
Urban	47.60% (65.80%)	27.35% (47%)

Table 3: Salient Facts about Tribal Women

1. The total population of tribal woman is 25,590,103. This is 7.96 per cent of the total female population.
2. 94.03 per cent of tribal women live in rural areas. Only 5.97 per cent of tribal women live in urban areas.
3. Only 2,056,546 tribal women are literate. 91.96 per cent of the tribal women are illiterate.
4. In rural areas 93.19 per cent of the tribal women are illiterate.

13.09 Educating Tribal Women

The sorry state of the tribal women can only be alleviated through proper education. The lack of education limits their awareness of the benefits of learning. Planning for providing educational facilities requires a good measure of sensitivity that takes into account the need for modernisation and the need to preserve and promote traditional life styles. Education has to be viewed not in terms of literacy but as a training for better life and social adjustment.

Education of girls and women is particularly important because if a woman is educated the entire family gets educated. Education increases women's power and self-respect and helps women to take sound decisions on the number of children. It also makes women more conscious about health, hygiene and nutrition and leaves them better prepared for parental and postnatal responsibilities including child rearing. It therefore also helps to reduce mortality. Unless the tribal women are educated the effort to spread education among tribals is unlikely to succeed.

A tribal woman occupies an important place in the socio-economic structure of her society. It is desirable to bring about social and economic changes in the tribal families by educating their women folk. The education and economy in the tribal society are inseparable and a large proportion of wastage and dropouts can be explained in terms of the use of the child by the families for economic purposes (Vidyarthi, 1968).

Education for tribal women should be integrated with the life and culture of the tribal people because in its absence a great gulf is created between the tribal who has been 'educated' and the others. Instead of being an end in itself, literacy is a tool in developing women's capacity to understand the context and society in which they live, in raising their level of consciousness and in helping to manage and make choices about their lives.

To be relevant, tribal women's literacy programmes must relate to women's daily life experience and the different experiences women face in different contexts. Literacy efforts have to be co-ordinated with other social developments.

At the same time, education must be geared to the economic needs of the community. Besides being producers, processors and distributors of food to their families tribal women are also earners of essential cash income which goes towards the family's basic need. Tribal women have, therefore, a dual economic role as unpaid labourers at home and in the fields and paid labourers outside the home. According to the 1981 census, about 80 per cent of female workers are engaged in agriculture as labourers or cultivators. More than a third of all women workers are cultivators and almost half are agricultural labourers. This is true for tribal women also because they live in jungles, collecting wood and working in the field to meet the economic needs of the family. Therefore the education should have a functional importance for them by way of providing new knowledge, skills and new technology so that their economic development is ensured. Some of the important areas that need to be included in a meaningful programme for tribal women are: Health and population education, and Skill formation and cottage industry.

13.10 Health and Population Education

The health status of tribal women is very grim. Tribals are in general unhealthy and ill. A recent survey of health status (Singh *et al* 1987)

mentioned earlier, has exposed the extremely low health status of tribals. It is reported that:

"29 per cent of the families studied had some illness or disability. About 10 per cent had suffered some kind of defect related to the age. Less than 8 per cent of the children were immunized. Two-thirds of the children under 5 were malnourished, 44 per cent having severe malnutrition. A large majority took tobacco (71%)... and most of them (89%) drank alcohol, mainly *haria*... two-thirds of them did not take a daily bath, the percentage of women being as high as 90. Most of them did not wash their personal clothes regularly (91%). An average tribal woman married at the age of 15 and had 6 children, two of them dying during her lifetime. The average tribal family of about 7 lived in about two rooms. The extent of scientific information, attitudes in relation to physical and mental health, diet and nutrition family planning and child care including breast-feeding and hygienic health habits were almost negligible; the overall average score being about 1 per cent."

Health education for nutrition, family planning, use of dietary and non-drug remedies for simple ailments, environmental hygiene should be imparted to tribal women. The content of health and population education which should address itself to the following five main themes as identified by Singh *et al* (1987) are:

- i. Population development and growth of life
- ii. Health
- iii. Diet and nutrition
- iv. Family planning
- v. Child care

13.11 Cottage Industry and Self-Employment

In order that education becomes a means of economic development, skill formation should constitute an important part of any education programme. The inherited skills of the tribal women can be utilised by reviving and resuscitating their traditional arts, crafts and cottage industries. In this manner, they can grow in their traditions without losing their sense of joy derived from the active celebration of their festivals, their songs, their feasts and their dances in addition to their achievements in their occupations. Emphasis should be given to these trades and skills that are relevant to the indigenous culture of the particular tribe and which can be supported by locally available raw materials.

The principal objectives of this should be:

1. Preparation for socially useful productive work,
2. Propagation for an occupation and trade,
3. As a feeder to industry.

Traditionally the home has doubled as a workplace to produce items of daily household use such as food, cloth, basket, bucket, broom, carpet, craft and products of artistic value. The process of industrialisation has eroded these home-based products and reduced the tribal women to work as labourers. Education in these skills will go a long way to restore the status of women and the balanced economy of the tribal community.

The crafts for which local materials are available can be introduced. Some arrangement may be made to sell these products in order to avoid exploitation by the petty traders.

3.12 Distance Education for Tribal Women

In spite of the best of efforts by several agencies, governmental and private, the enrolment of tribal women has not improved substantially. Enrolment of girls to all three stages of school continues to be extremely low in comparison with that of tribal boys: 1.44 million out of a total of 4.33 million at the primary school level, 0.16 million out of 0.62 million at the middle school level and 0.07 million out of 0.26 million at the secondary school level (UNICEF, 1980).

The reasons are essentially economic. The burden of their workload does not permit the children of the disadvantaged to attend classes. Persons in rural areas in general and the tribals more so, cannot afford to spare their sons and daughters for the luxury of attending school. This situation is all the more aggravated because of the popularly recognised flaws in the Indian educational system. Not only does our curriculum not focus on any useful skills but it also creates in the students a strong aversion to do any physical work. Thus the general school education, instead of supporting the social structure, cuts at the very roots that sustain a tribal society.

A curriculum with a strong bias towards non-formal education is perhaps the only answer and distance education is the only workable mode, because it interferes least with the other day-to-day responsibilities of the target population.

Distance education typically relies on one or more of the following media — printed texts, posters, charts, films, video tapes, radio and slide shows. Among these, printed texts rely very heavily on the literacy

of the users. In a programme of non-formal education addressed to a largely illiterate target group, it is difficult, if not totally inappropriate to place substantial reliance on printed texts. Any of the other media can, if correctly prepared, be freely used without making undue demands on literacy requirements of the learners.

Because of the great multiplicity of tribes, with each having its own language, it becomes imperative to place heavier reliance on the spoken word than on written matter. This is so because of the great ease with which the spoken word can be easily dubbed into another language without detracting from the effectiveness of the message or communication.

Another special consideration that is important in planning for the delivery mechanism is the fact that most of the tribal population dwells in remote areas that are not easily accessible. This factor overwhelmingly weighs the choice of medium in favour of heavy reliance on radio and television for distance education of tribal women.

The radio audience is about 250 million. AIR produces programmes from 85 radio stations. It broadcasts 250 bulletins a day in 19 languages and 35 tribal dialects. Almost the entire country is covered by medium wave broadcasts.

Doordarshan also reaches almost all over the country through INSAT-1B programmes. India also produces over 700 features films each year in more than 20 languages for an audience of 70 million per week (Grant, 1934). TV and film offer unique advantages through both audio and visual media. Not only is the impact greater, but the demands on the literacy and intelligence of the target audience is also minimal. These media can be used with great effectiveness to provide tribal women with programmes on health education, nutrition, population education, family planning, art and craft of the region as well as knowledge of the law and opportunities for income and employment.

The existing infrastructure is adequate for reaching the entire tribal population. With more extensive use of tribal dialects, radio and TV can be used with great effect for the education and general upliftment of tribal societies.

14

RURAL EDUCATION

14.01 Introduction

The population in India is large and resources are limited. Eighty per cent of this population live in rural areas and comprise a vast majority in the developing countries. Almost all of them are potential clientele of non-formal education, irrespective of their sex, age or occupation. In spite of increasing migration to urban centres, the rural population will increase substantially in the decades ahead. The United Nations has projected an overall increase in the rural population of the developing regions from 1.91 billion in 1970 to 2.62 billion in 1990. This trend has a major implication for agricultural production, land use, and rural employment which in turn has vital implications for rural education. Mahatma Gandhi aptly said, "that India lives in her villages", and with crystal-clear concepts of his own, that is the rural India which is the real India, advocated basic education in which he wanted to educate and train the rural youth in the traditional rural occupations and improve on such occupations with a rational look. Due to the lack of committed workers and its incompatibility with the modern way of life, it did not succeed. Multipurpose schools were later on tried, in some states at the suggestion of Mudali Commission, and academic subjects were replaced by vocational subjects. But due to the lack of finance this also did not succeed.

The Education Commission's (1964-66) Report clearly supports the fundamental idea of basic education. The essential features of basic education, namely, productive activity, correlation of curriculum and content with productive activity and the environment and contact with local community are so important that they should guide and shape the education system at all levels. However, the revised S.S.C. course has severely cut down the content of technical subjects for S.S.C

(Technical). Even the concept of the SUPW (socially useful productive work) which formed an important theme in the reform was interpreted in many ways. The major criticism was that the needs of rural students, many of whom would be leaving school after anywhere from five to nine standards are not catered for and that the school education has hardly bestowed anything to the rural student beyond the three R's.

According to Reymond Lallez (1974) 'ruralisation' is not opposite of industrialisation or modernisation or development. Rural education must train people not only to exploit rural and agricultural resources but to develop them in new ways which would industrialise it. In order to avoid discrimination between urban and rural education, the author advocates ruralised primary education for both the urban and rural schools in which along with other things they will also learn the rudiments of agriculture. The author feels that every citizen in an agriculturally predominant country should possess rudimentary knowledge of agriculture. It is recognised at present that the educational structure which the country has built during the post-independence era is primarily oriented towards the needs and aspirations of the urban population. In a developing country with 80 per cent population living in an impoverished rural environment and 48 per cent below the poverty line, the major share of resources should be directed to the development of the rural population. The policy frame of the UGC titled, "Development of Higher Education in India" (1977), pointed out the impending need on the part of the universities, colleges and other higher educational institutions to increase the impact of education in the community, in their neighbourhood and beyond and therefore to become more socially responsible. That is, the university system should encourage and internalise extension as an integral part of teaching and research. This, in turn, places a high demand on the university on the planning, organising, and directing of relevant activities. Students and teachers should get an opportunity to be exposed to extension activities and through them to the open challenges of community development work. As Lord Robbins (1969) points out, such a "Neighbourhood Effect" may make a community receptive to rapid communication of ideas, to high potential mobility and is likely to be more prone to achievement through greater production. Formal education needs to be socially professionalised (socially purposeful and work-oriented), through the essential ingredients of extension for community development.

14.02 Rural Development

Rural development does not indicate only agricultural or industrial outputs but it should ultimately lead to a balanced social and economic development. The major emphasis should rest on equitable distribution of income, housing opportunities, health, hygiene and nutrition, opportunities to realise their full potential and a strong voice in shaping their decisions. Thus, rural development needs a multi-pronged effort to boost production, create employment and root out the fundamental causes of poverty, illiteracy, disease, superstitions, exploitation and injustice. The Government of India has been making an intensive effort at rural development during the successive Five Year Plans. There used to be a variety of programmes for different target groups, such as small and marginal farmers, agricultural labourers etc., under the Integrated Rural Development Programme (IRDP). There was a provision of Rs. 5,364 crores for rural development in the Sixth Plan and an additional Rs. 1,480 crores for special area programmes and Rs. 1,780 crores for rural industries. IRDP is now extended to all the 5,011 blocks, throughout India with a uniform budget of Rs. 5 lakhs per year per block. Each block has about 20,000 families with half of them below the poverty line. Assistance is proposed to be given to 3,000 families during the plan period, at an average rate of 600 families per block per year. (400 families in agriculture, 100 families in cottage industries, and 100 families in services.) 30 per cent of the families have to be from Scheduled Castes and Scheduled Tribes. Thus IRDP has been covering 2.8 million families every year.

14.03 Minimum Needs Programme

The aspect of the Minimum Needs Programme is now gaining ground in which the amenities such as, elementary rural health, nutrition, water supply, rural roads, house sites for the landless, and rural electrification have to reach the poorest, irrespective of what they can afford.

14.04 ISB and TRYSEM

The ISB (Industries, Services and Business component of the IRD) was launched during February 1979, in order to increase the income of the artisans and to produce a new class of artisan-entrepreneurs. TRYSEM (Training of Rural Youth for Self-Employment) was introduced in August 1979, with the intention of equipping the rural youth with necessary skills and technology to enable them to start self-employment programmes. TRYSEM is meant for persons between 18 and 35 years of

age. The target is to train two lakh rural youth every year or a minimum of 40 youths in each block. The target group for both these programmes (ISB and TRYSEM) is small and includes agricultural or non-agricultural labourers or artisans, small and marginal farmers or any other person below poverty line. Priority is being given to the poorest of the lot. No education criteria are prescribed.

Evaluation reports from Andhra Pradesh, Gujarat and Rajasthan indicate that the scheme has not achieved the expected goals due to certain drawbacks and deficiencies in its implementation. As the duration of six months is too short to learn or to master the trade, the learners are not in a position to take to self-employment. Literacy was not included as one of the aims, in spite of most of the learners being illiterate.

Rural development is a social process and it cannot be achieved by any one institution. The participation and the involvement of the community, that is, all the beneficiaries, and the voluntary organisations is a must. The poor need guidance and help in raising their income by adopting different techniques, securing the inputs, and markets and in ploughing the profits for development. For this, employment generation should receive top priority and the support of the entire community should be combined with the exploitation of appropriate technology. For, according to N.L. Chawla, Director, Indian Institute of Mass Communication, "People's participation in development plans is directly related to their understanding of the plans and appreciation of what is good for them. The sweep and reach of our mass media is still inadequate, in rural areas, particularly its poor." Development needs an appropriate technology and a delivery system, which is a multi-disciplinary effort. Only a well-founded extension service can convey the message to the smallest man in the village. Intimate and convincing communication is needed to persuade the villagers and the tribals to get involved and participate in the developmental and anti-poverty programmes of the government. The concept of people's participation has its origin in the Constitution of India, which was later enforced by the community development programmes. Though people were willing to participate they had no part in planning or needing identification, fixing programme objectives and priorities. Ultimately, only people's participation and cooperation can solve their local problems, through the development of the local self-government.

The Process of Development

Education is only one of the interacting forces of rural development. Rural areas widely differ in many respects, such as, their background, traditions, culture, language, religion, social pattern and political structures. There is also marked difference in their basic development potential, natural resources, present stage of development, economic infrastructure and their readiness to accept innovative ideas in order to advance further. These differences imply that there cannot be one uniform standard formula for the type of education needed to promote rural development. Education for rural areas, both formal and non-formal, should be flexible, adaptable, need-based and client-oriented if it is to respond to the new demand for skill and knowledge requirement.

14.05 Education Needs for Rural Development

The educational needs for rural development can be categorised under the following four major areas:

1. General basic education comprising literacy, numeracy and understanding one's environment.
2. Family improvement education such as awareness, attitudes and values to improve the quality of family life on health, nutrition, childcare, etc.
3. Community improvement education to strengthen local and natural institutions.
4. Vocational education related to income generating activities.

These four types of education are essential for all rural people male/female, young/old.

14.06 HRD—A Prerequisite for Rural Development

Most of the economic programmes failed to bring about improvement in the living conditions because the human element was totally neglected. Human development is a prerequisite for rural development. The quality of human factor can be improved only when their potential abilities, skills, perceptions, attitudes and values are developed.

14.07 Need for Education

The major instrument providing the people to undertake the development of a country is the educational system. The wrong type of education or disproportionate amounts of education can be even more wasteful.

Illiteracy has been identified as one of the stumbling blocks to development. The overall literacy percentage is only 36.12 per cent in India since 64 per cent of the population is illiterate. There is a serious imbalance between the highly educated and the completely uneducated. The whole appeal of education does not lie in its usefulness alone, it is even more significant as a symbol of freedom and of hope. A revolutionary increase in the number of educated is the need of the hour in a democracy like ours.

14.08 Development of Rural Community

Much money is spent on education for children which bring scant returns for several years. Adult and non-formal education needs more emphasis in rural areas, otherwise production will be in the hands of uneducated and untrained adults. Adult and non-formal education is equally important in many spheres affecting their lives such as health and hygiene, family welfare, community development, industrial development, etc.

Every individual has a right to education. The demand for education has far surpassed the infrastructure of formal education. Hence, an alternative non-formal approach through the application of educational technology is the need of the hour. Hence, education in the cognitive domain to build up awareness and knowledge, in the affective domain to develop proper motivation, perception, attitudes and values and in the psychomotor domain to provide skill development has to be provided to the rural population. (This can be successfully done only through mass media and educational technology.) The term adult education thus denotes the entire body of organised educational processes whereby persons regarded as adults by the society, develop their abilities, enrich their knowledge, improve their technical or professional skills, and qualifications and bring about changes in their attitudes and behaviour in the manifold perspectives of full personal development and participation in balanced and independent social, economic and cultural development.

14.09 Education Technology

All technologies of learning from the traditional chalkboard to fibre optics place constraints on, and offer opportunities for, effective and efficient teaching. They place varying emphasis on the various channels of communication, on the degree of passivity or activity of the learner, on the degree of dependence and on the resources of the instructor.

Technologies do not have the inherent capability which make them applicable to all situations for all students and for all types of learning. Their usefulness depends on the manner in which they are used. Ultimately, the essence of education lies not in the technologies employed but on what both the instructor and the learner do with technology to promote the learning process. When education technologies are involved, the following four essential elements should be regarded.

1. *Hardware*: This covers the equipment aspects of the technology and the constraints and opportunities they provide for the learner and the instructor to achieve learning.
2. *Software*: This refers to the programme designed in a form appropriate for use in the relevant hardware. This should be related to the level and nature of learning.
3. *Personnel*: This encompasses the need for trained personnel to design software and use the technology.
4. *Organisation*: This refers to both the macro and micro level organisation required to integrate the technology into the instructional process.

The trend of new technologies is towards the promotion of individualised instruction. This has led to the narrowcast technologies which are highly goal-specific content requiring a high level of learner participation. Many kinds of hardware may be used either in broadcast or narrowcast modes.

14.10 Broadcast Media

From this broad point of view, the broadcast media may meet a series of distinct needs such as disseminating knowledge, creating awareness and learning opportunities, sensitising a large population, and encouraging participation. As a novel and attractive medium, television has become an all-purpose pervasive means of mass communication. It has in fact penetrated deeply with its entertainment, temporary release from day-to-day worries, and its educational, informational and endless stream of commercial messages. It has actually changed the way in which people see the world.

Television

Though TV in India made a late start, it has reached nearly 30 per cent of the population. TV viewing in rural areas is facilitated by the

processing of community sets. Programmes on agriculture, health, education, family welfare, and adult literacy are telecast in addition to entertainment. The cases of 'Krishi Darshan' for farmers from Delhi, SITE instructional programmes spread over 6 states through INSAT - IB on agriculture, health and hygiene, family welfare, science education etc., the Kheda communication project leading to the adoption of new practices and change in traditional values and beliefs, literacy through TV project of Bombay, Education for life programme of Madras, Zara Sochiye (think a little) programme of Delhi on civic and social problems. *Jaan Hai Jahan Hai* programme of Delhi on common ailments and health problems are some of the successful experiments conducted through the TV. Such an exciting and powerful medium should be exploited to the maximum for education in rural areas.

Radio

In our enthusiastic response to the new and glamorous medium the television, it seems that radio has been relegated to a position of secondary importance. But actually it is not so. Radio has much to recommend it and it is not a poor relation to the TV. The TV is mainly an urban medium. For the average rural dweller, residing 3 to 4 hundred kilometres from the nearest urban area, the TV is still an unrealised dream in his life. For these people, the truly significant means of information, education and entertainment is radio-broadcasting and it will continue to be the primary means of mass communication in rural areas, for years to come. The invention of transistor has revolutionised the listening habits of the people. Unlike the TV, the radio listener need not remain fixed in one place. The radio takes advantage of the listener's predisposition to the rural mode, for the listener need not be literate. The radio cannot provide visual information by means of the medium but drawings, illustrations, photographs, and graphs can be distributed as part of their learning experience. This combination is known as "radio-vision". But this lack of visual information allows the audience to engage their imagination fully and actively.

Nearly 6.3 per cent of broadcasting time is devoted to farmers and rural audiences. The radio rural forums of Pune form effective communication with rural people. Mother-child care programmes under ICKS, FFLP etc. are some successful experiments of utilising the radio for rural education. Such a cost-effective, economical, appropriate and available medium should be fully exploited for educating the rural masses.

14.11 Other Media

In addition to radio and TV, other media such as print audio cassettes, video discs and micro computer, cinema and folk arts should also be used. The mobile film units of the field publicity departments can be utilised for education. The field publicity units can organise film shows, plays songs, and show dances for public education.

India is rich in its traditional folk arts. These are effective modes of expression for communication and entertainment, especially with rural population. These significant and powerful folk arts must be revived, strengthened and utilised not only for cultural enrichment but also for social education and development in rural areas.

Interactive Technologies

A combination of two or more technologies which allow the students to interact is termed as "Interactive technology". With careful planning, many technologies can be made to be interactive to a greater or lesser extent, depending on their availability, suitability and acceptance.

14.12 Conclusion

Education is considered a prerequisite for development. It endows people with knowledge, skills and orientation. India lives in its villages. Unless and until the rural population is educated, the country cannot function effectively as a democracy. For achieving this, not only have the educational technologies to be exploited but also the communication inputs through these technologies and inter-personal channels should be linked together so as to achieve effective interface and inter-play of the information through different sources for optimum results. The communication technologies with their potential to improve learning, are elements in the evolution of a more effective and efficient education system for the rural population.

HEALTH EDUCATION IN INDIA

15.01 Health Education

It is well said that health is wealth and everyone should know how to maintain one's health by avoiding hazardous situations and unhealthy habits. It is ultimately the responsibility of the government and other social institutions to create awareness and to provide facilities for maintaining health. Health denotes the quality of a person's physical, psychological and sociological functioning that enables him or her to deal adequately with self and others in different situations. According to WHO, "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. Health is a process of improving human effectiveness. It is a process that informs, motivates and helps people to adopt and maintain healthy practices and lifestyles, advocates environmental changes needed to facilitate this goal and conduct professional training and research to the same end."

The three major objectives of health education are:

- a. To inform people by disseminating scientific knowledge, about prevention of disease and promotion of health, for creating an awareness will remove the barriers of superstition, ignorance, prejudice and misconceptions regarding health and diseases.
- b. To motivate people to change their style of living and habits and modify their behaviour. They should be made aware of the dangers of smoking, drug addiction, addiction to alcohol, lack of exercise, need for a small family etc. Health education should provide not only knowledge but also assist in changing their attitude and practices.
- c. To encourage, counsel and guide people into action. As a consumer, they should make their choices and use judiciously and wisely the health services available to them, through the government and other institutions, for the prevention and cure of diseases.

These can be realised through the regulatory approach (legal approach) which attempts to protect the health of the people through the enforcement of laws and regulations which are effective only in times of emergency. The service approach aims at providing all health facilities on the assumption that people would use them as and when necessary. But it is the educational approach which is the most effective means of attaining the required results of solving community health problems. This may be approached through individual and family approach, small group approach and the mass approach. The stages through which people pass while accepting any model are awareness, interest, evaluation, trial, and finally adoption.

Health education should include human biology, nutrition and hygiene, environmental hygiene, family health care, prevention and control of diseases, prevention of accidents, mental health and use of available health services. Health education involves teaching, learning and adoption of health practices. It includes interest, participation and reinforcement. Health education is primarily a matter of communication. This can be done through lectures, using all available audio-visual aids, group discussions, seminars, symposia, panel discussions, workshops, role-play, simulation and programmed instruction.

15.02 School Health Programmes

The Ministry of Health introduced the policy of School Health Education in the Central Health Education Bureau. State Health Education Bureaus were established with central assistance to bring about desirable changes in health, knowledge, attitudes, and practices of the school population. Besides these, the Directorate of Advertising and Visual Publicity, the Press Information Bureau and the All India Radio are also engaged in health education work. Voluntary agencies such as the Indian Red Cross are engaged in health education activities. Health education is incorporated in the programme of comprehensive medical care provided by the primary health centres in India.

A school health programme involves the following major steps such as organising the principals of the schools, motivation and involvement of teachers, provision of health education for teachers, development of resource materials, and implementation and evaluation. A school health committee involving the principals, teachers and pupils should be formed which should be responsible for health of the pupils,

by mobilising the resources, planning, implementing, and evaluating the programme. The programme should provide learning activities, health services such as the identification of defects and remedial measures, prevention of diseases, and provision of healthy school environment with safe drinking water, sanitation, ventilation etc. School health is an important aspect of community health services. Secondary Education Committee emphasised the need for medical examination of pupils and school feeding programmes. In 1960 the Government of India constituted a school health committee to assess the standards of health and nutrition of school children and suggest ways of improving them. School children have problems of malnutrition, infectious diseases, dental caries, and diseases of the skin, eye and ear. The objectives of school health service are the promotion of positive health, prevention of disease, early diagnosis, treatment and follow-up of defects, creating health awareness among pupils, and a healthy environment. To sum up, school health programmes should include health appraisal, remedial measures, prevention of diseases, nutritional services, healthy school environment, first aid, mental health, dental and eye health and health education, education of handicapped children and maintenance of health records. Periodical medical examination and provision of mid-day meals are recommended. Behaviour disorders such as anti-social problems, habit disorders, personality disorders, psychosomatic illnesses, and educational difficulties should be identified and treated.

15.03 Health Education Programmes in India

The ICDS aims at the delivery of a package of services such as supplementary nutrition, immunisation, health check-up, referral services, health and nutrition education, and non-formal pre-school education in an integrated manner, to pre-school children, expectant and nursing mothers and women in the age group of 15-44 years. The various programmes undertaken to combat the problems are as follows: National Malaria Eradication Programme, Diarrhoeal Diseases Control Programme, National Filaria Control Programme, National TB Control Programme, National Leprosy Control Programme, STD Control Programme, National Programme for Prevention of Visual Impairment and Control of Blindness, National Goiter Control Programme, Universal Immunisation Programme, National Family Planning Programme, National Water Supply and Sanitation Programme, Guinea-worm Eradication Programme, Minimum Needs Programme and finally the 20 Point Programme, in addition to the Five Point programmes.

EDUCATIONAL SYSTEM IN INDIA: STRUCTURE AND STANDARDS

16.01 Educational Structure

The standards in any given system of education depend upon four elements:

1. The diversion of the educational systems into different levels and their inter-relationships;
2. The duration of the different stages;
3. The extent and quality of essential inputs such as teachers, curricular methods of teaching, evaluation, equipment building; and
4. The utilisation of available facilities.

The educational structure now prevailing covers:

- a. A pre-school stage for pre-primary stage of two years — LKG and UKG for children between 3 to 5 years, mainly involving play-way methods such as kindergarten or montessori. This education is offered by both state government-aided schools and private bodies.
- b. A primary stage of eight years divided into two sub stages — a lower primary stage of five years and a higher primary stage of 3 years. The age of admission to class I will ordinarily be not less than 5 years.

At the end of the primary stage, a proportion of students will step off the school system and enter working life (about 20%). Some more will step out of the stream of general education into different vocational courses whose duration may range from one to three years (about 20 per cent) and those remaining (about 60 per cent) will continue further in the stream of general education.

A lower secondary or high school stage of two years in general education. The ten years of school education is followed by an external public examination. The standard at the end of ten years will be broadly comparable in respect of curriculum and level of attainment to the national standard laid down for the end of this stage. At the end of the ten years of school education, a proportion of students will step off the school system and enter working life (about 40 per cent). Some more will step out of the stream of general education and enter vocational courses whose duration will be one to three years (about 30 per cent); and those remaining will continue further in the stream of general education, whose duration will be two years (about 30%).

A higher secondary stage of two years of general or vocational education. Attempt at specialisation is made only at this stage, in different subjects. Higher Secondary Education is located mostly in schools. With the intention of preparing young persons for employment, provision is made for the introduction of different types of vocational courses at the higher secondary stage. Thus the school education till the higher secondary level follows a uniform structure of 10+2, i.e., 12 years. A public examination is conducted at the National level at the end of the higher secondary level.

16.02 Higher Education

Prior to 1947, the pattern of higher education was almost uniform throughout the country. The duration of the course leading to the first degree in arts and science was two years and this was followed by a two-year course leading to the second degree, i.e., the postgraduate degree. But, at present, in order to implement the uniform national system of education, 10+2+3, the duration of the course for the first degree in arts, science and commerce has been lengthened to three years in all universities: One in two universities have an honours course in certain subjects, covering a period of four years in the aggregate. Also, the degree courses in professional subjects are generally longer than the courses for the degrees in arts and science. The agricultural, engineering, architecture courses extend to four and five years and the medical course has an even longer duration.

The duration of research-oriented full and part-time M.Phil & Ph.D are one and two and three and four years respectively.

16.03 Falling Standards

Expansion of education should be both qualitative and quantitative. The common complaint against the development of education in the post-independent era is that the standard has fallen. This is mainly due to the increase of sub-standard institutions and of general education and the increase in the number of students with sub-standard attainments. This increase in the number of student's with 'sub-standard' attainments may be due to the first generation learners who need special attention. The standard should not be compared with those of the past but on the basis of three interrelated criteria such as adequacy, dynamism and international comparability. Standards must be adequate in relation to the tasks for which they are intended, an effort should be made to meet the demands for the higher levels of knowledge, skills or character which a modern society needs and internationally comparable in the key sectors where such comparison is important. Judged on the basis of these criteria, the present situation seems to be far from satisfactory.

16.04 Alternative Channels of Education

Exclusive reliance should not be placed on full-time education alone but the other alternative channels of part-time education and private study or own time education such as correspondence/distance education and open learning should be developed simultaneously. The demand for education has increased due to the population explosion and the motivation of adults for higher education. Hence a second chance has to be provided to all those who have missed the first opportunity in the early years due to some problem or the other. The formal system is unable to cope with this increased demand due to the limited infrastructure. The reliance on full-time education as the sole channel of instruction often divides the life of our individual into three water-tight and sharply decided stages—a pre-school age and no formal education or work, a full-time education and no work, and a post-school stage of full-time work and no education. In a modern and rapidly changing society, education should be regarded not as a terminal but as a lifelong process. Every individual should be brought under the formal system as early as possible and should be kept under it directly or indirectly throughout his life. Also, there should not be any water-tight compartment between work and education at any stage of a person's life but only a relative shift of emphasis. An individual under full-time education should have some work-experience as an integral part of

education and a full time worker should possess the inclination, leisure and the facilities to continue education further. To fulfil these objectives, the alternative channels of part-time, own-time and open education through the distance mode should be developed on a larger scale at every stage, in every sector of education. Adult, non-formal and continuing education should be emphasised to a very great extent.

16.05 Adult Education

The term 'adult education' is rather difficult to define because it designates all educational activities that are meant specifically for adults, provided by a variety of institutions and agencies, such as the government—both centre and the state, universities and colleges, other private and public institutions and voluntary agencies. It may be informal, formal, non-formal, continuing or distance education. Adults may learn from their day-to-day experience both at home and at work, consciously or unconsciously. The learning at such social settings is informal, continuous and casual. Unlike the formal setting which is highly institutionalised, chronologically graded and hierarchically structured, the non-formal setting is flexible, systematic, diversified and learner-centred. For a developing country like India, with 64 per cent illiteracy, adult education can be defined only as the process of eradicating illiteracy and providing the basic 3 R's to every citizen, to function effectively in a democracy. Unless the human facility is developed, the nation cannot attain economic development and the development of human resources is dependant on literacy and education to the masses.

Adult education was provided under the names of community education or social education during the fifties, but it was launched with full vigour on a war-footing under the name of "National Adult Education Programme" on 2 October 1978 to provide literacy for approximately 10 crores of illiterates in the age group of 15-35 years, by the end of 1983. The three major aspects such as awareness, functionality and literacy were emphasised to develop the hand, heart and the head.

The objective was not achieved as expected, for reasons beyond control such as population explosion, etc. "Mass illiteracy is India's sin and shame and must be eradicated at any cost," said Gandhiji years ago. Even 42 years after independence, no dent has been made in reducing the number of illiterates in the country. In fact, the country has larger

masses of illiterates than ever before. The World Bank Report indicates that, "under the existing rates of progress, India will consist of 54.5 per cent of the global illiteracy in the age-group of 15-19 by the time we enter the 21st century."

16.06 National Literacy Mission

With the intention of grappling with this herculean task, the Government of India launched a mass campaign of the National Literacy Mission (NLM) on May 5, 1988. All the concerned departments of the government, voluntary agencies, mass media and individuals were urged to cooperate and coordinate their efforts in making the mission a success. Of the six national missions envisaged for systematic progress in diverse National sectors, the NLM is, perhaps, the most significant and crucial for the country's overall development. As a key document on NLM prepared by the Union Ministry of Human Resource Development (HRD) puts it, "Literacy is an indispensable component of human resource development. It is an essential tool for communication and learning, for acquiring and sharing of knowledge and information, a precondition for an individual's evaluation and for national development."

The NLM document records that the number of illiterates in the country in the age group of 15-35 years has increased from 91 million in 1951 to 110 million in 1991. Hence media support to the NLM attains vital dimension because media reach in the country has of late been leap-frogging at regular intervals. With the enhanced media support, the main objectives of NLM are simple and convenient to achieve. The major objective of NLM is "to impart functional literacy to 80 million people in the 15-35 age group — 30 million by 1990 and additional 50 million by 1995." It defines functional literacy as "achieving self-reliance in literacy and numeracy; becoming aware of the causes of their deprivation and moving towards amelioration of their condition through organisation, participation in the process of development, acquiring skills to improve the economic status and general well-being, and finally imbibing values of national integration, conservation of the environment, women's equality, observance of small family norm." With 94 million (85.5%) illiterates residing in rural areas only mass media can create national commitment, develop an environment conducive to learning, inculcate motivation among learners and teachers; organise mass mobilisation and people's involvement, offer techno-pedagogic inputs and conduct efficient monitoring and

evaluation. Therefore, media—both government, and private owned—should assist this national literacy programme through sustained, systematic, meaningful and easily comprehensible campaigns. "Programmes, both visual and audio, will have to convincingly make people believe that by being literate, they can effectively involve themselves in the nation's political action, socio-economic programme and that literacy alone can help accelerate their total development." These programmes will have to address the learners directly, "promising" to improve their economic status through "learning of new skills, discussion on political questions, family health and enabling them to read religious texts." The programmes should concentrate on highlighting functional education, skill development, economic activity, health and particularly on women's programmes based on health of the child. Traditional media such as puppets, folk songs, folk dances, and street theatre groups can disseminate information stressing the importance and use of literacy.

Since the Rs. 550 crores NLM target is to make 10 million people literate every year up to 1995, the "images and voices" of the learners have to be used to generate an authentic media strategy. As 85 per cent of them live in rural areas, the preparation of media support should be entrusted to the rural people, and the rural agencies such as panchayats and block development bodies. "Planning communication (media support), as a process of empowerment, must be given to the people themselves rather than left to the insensitivity of the planners and development managers, and must begin at the grassroots level." The year 1990 being the International Literacy Year should highlight the importance of literacy. A climate conducive to learning should be created all over the country during 1990. The campaign can succeed only when the people who will be directly affected by the programme, actively participate in it. For this, the mass media programmes should link literacy with socio-economic development of the individual and hence the nation. Literacy should be associated with personal and family progress and success stories should be presented to the beneficiaries so that the NLM campaign can achieve a sure and determined boost.

17

EDUCATION IN USA

17.01 Background

Local administration in education is a historical tradition in America established by the first settlers. In spite of a complete change of social and economic conditions, the local unit of school administration survived, as the typical feature of America. USA has a population of over 150 million and an area of about 3,022,387 square miles with a density of population of about 49 per square mile. Education is very much governed by social needs as is the case of any other country. Europeans have contributed a lot to its education.

During the 17th century, in order to meet the social requirements of America, an indigenous system of education based on the principles of equality and democracy and universal education was born. No distinction of caste, creed or class was to be made. The states took the responsibility of education based on local socio-economic needs. During the 19th century, after the second war of independence, a revolutionary change in the field of education was brought about. State boards of education were established. Normal schools were established to provide training to the teachers. Classical education which had no bearing on life gave place to liberal education, with changed curriculum and contents. Aristocratic education yielded place to general education which included scientific, industrial and technological subjects. Elementary education was made free. Equality was the cornerstone of the educational set-up of America. American education was based on certain fundamentals which are the requirements of democracy.

The basic principles of American education are:

1. To inculcate in the citizens the capacity to grow into successful world citizens.

2. To develop the quality of cooperation in public jobs and social reconstruction.
3. To be an instrument for vocational and economic progress.
4. Teaching the Do's and Don't's of good citizenship, based on the values of humanity and morality.
5. Beyond school education, to provide people the knowledge of democracy, exercise of franchise, etc.
6. To have education under the local control.
7. To provide secular education.
8. Education is free from dual control.
9. Universal and compulsory education for all boys and girls between the ages of 7 and 16.

There is provision for free mid-day meals, free conveyance, free medical examination and treatment. There are institutions from primary to higher education in all the states. In short, American education has been drawn up with a view to meeting the requirements of democracy.

17.02 The Educational System of USA—An Overview

America is still in the making, her past is so short. America believes that tomorrow is always more important and better than today. This philosophy of life and education system reflected the conditions of American growth and tended towards pragmatism and relativism. John Dewey is the representative American philosopher and leading education pioneer. His experimentalism and pragmatism fully expressed the frontier spirit of America and in turn profoundly influenced the theory and practice of contemporary American education.

Since Independence, the Constitution of America excluded education from the purview of the Federal authority. Each state was left to build its own education system, which they relegated in truth, to the local authorities. In spite of a complete change of social and economic conditions, the local unit of school administration, survived until now as the typical feature of American education. There are three main systems of local control education, such as district system, the township system and the country system. However, the Industrial Revolution and the necessity for technical education lead to the intervention by the Federal Government which will sooner or later result in a considerable measure of Federal control. The war further increased the intervention of the Federal authorities. The office of education assumed general

direction and guidance of all education connected with the war and by the Act of 1940, it was authorised to provide short intensive courses of college grade, designed to meet the shortage of engineers in activities essential to national defence.

The American school system is still in a period of transition. Majority of schools follow the new plan of six-three-three years, the minority continue to follow the old plan of eight-four years. The majority of states start compulsory attendance at the age of 7 years, some at six and others at 8. Attendance is compulsory up to 16 years in a majority of schools, to 14 years at some and to 18 at others. Attendance at nursery schools and kindergartens is voluntary.

17.03 Pre-primary Education

It is felt that the initial years of the child, particularly up to 6 years, is a very important period in its life. It was Rousseau, the French philosopher, who laid emphasis on the education of the child. The first kindergarten school was established in 1856. Thus pre-primary education was given its due place in America in the early years of the 20th century. The first nursery school was started in New York in 1919. It was only during the fourth decade of the 20th century, that nursery education saw its proper progress. With the industrial development, pre-primary education gained further impetus. Many kindergarten schools and nurseries were slated to look after the education of the working mothers. There are three agencies for pre-primary education in America:

- (a) Home
- (b) Nursery schools
- (c) Kindergarten schools.

As the responsibility of educating the child during the first year rests with the parents, they are given proper guidance to discharge their responsibility successfully, through the network of institutes and guidance centres. There are several voluntary and government organisations that look after the education of children at home. They are:

1. Parent-Teacher Associations
2. Health Departments
3. Research Centres and Clinics maintained by Universities and Colleges.

17.04 Nursery Education

Nursery education begins at the age of one year with the objective of socialising the children in a scientific manner, by living and playing and dining together. Hygiene and sanitary habits and social instincts are developed through corporate and collective life. Children are well looked after and working parents are free from worries. Nursery education lasts up to 4 years. There are two types of pre-primary schools:

- (a) Day nursery
- (b) Nursery schools.

Day nurseries send the children home to their parents in the evening. Children are provided home atmosphere and nutritious food when the mothers go for work.

Nursery schools are meant for children of 18 months to 4 years of age. These are maintained by the state, religious institutions and individuals. Nurseries that are maintained by the state and public bodies are called cooperative nurseries. These aim at developing creative tendencies and constructive outlook through group games and co-operative way of living.

There are also four types of nursery schools based on the agency who maintain it. They are:

- (a) Independent nursery schools.
- (b) Nursery schools run by primary schools.
- (c) Nursery schools that serve as a unit for composite child educational programme of the state.
- (d) Nursery schools that are maintained by secondary schools.

17.05 Kindergarten Education

Once the child reaches the age of 3 to 4 it finds a place in some kindergarten school. These schools aim at developing good qualities and prepare them for subject-wise education. The health of the children is looked after and they are made to develop cooperation and independence through group games and corporate living. Kindergarten schools can be classified into four types based on the curriculum:

- (a) Froebelian — run on the lines of Froebel — the father of kindergarten movement.
- (b) Montessori run on the lines of montessori system of education.

- (c) Progressive run on progressive lines.
- (d) Conservative run by well-to-do people with their own outlook about the way of life.

Other than these institutions maintained by the state, the government and public bodies, there are certain private nurseries and kindergarten schools maintained by a particular section of society. All these schools are run on scientific and psychological lines with the following aims:

1. To bring about proper emotional, social adjustment with the environment and proper outlook and attitude towards life.
2. To form good habits and bring about moral development of pupils so that they may become successful citizens.
3. To develop an attitude of cooperation.
4. To socialise through games and activities.

In addition to proper education, these nurseries and kindergartens provide accommodation for the children of working mothers leaving the mothers free from the worry of looking after their children.

17.06 Primary Education

Up to 1984 preparatory schools offered primary education on an eight-year basis. As primary education acts as a foundation of secondary and higher education, it is run on scientific and psychological lines in order to have perfect socialisation. Primary education is considered to be an integral part of education as a whole and as an extension of pre-primary education. Primary education in the USA is universal, free and compulsory, during the period of 7 to 16 years of age.

Primary education in America is guided by the following aims and objects:

1. Education citizenship,
2. Developing socialisation,
3. Developing of health,
4. Development of the spirit of freedom and liberty,
5. Individual progress and efficiency,
6. To equip the students to meet their requirements and fulfil their wants,
7. To develop in the students the spirit of cooperation and socialisation,

8. Development of creative instincts and tendencies, and
9. To provide for recreation.

The duration of primary education is for 3 years from 6 to 8 years and it is treated as a period of training. There is no national pattern of primary education, so far as the working and arrangement of educational programmes are concerned. The traditional schools admit children at the age of 6 years and the child is educated till the age of 14. Under the new scheme, it lasts between 6 and 12 years. The classes run for five days a week from Monday to Friday. Teaching goes on for 5 to 5½ hours, from 9 a.m. to 3.30 p.m. with a break of 1 hour. The average of working days is calculated at 180.

17.07 Curriculum

Curriculum includes all subjects necessary for a successful life of a citizen. During the 19th century, great stress was laid on the education of the R's; they are:

1. Reading
2. Writing
3. Arithmetic
4. Recreation
5. Relationship (Social)

These R's bring about the physical, intellectual, mental and social development of the child. Local as well as the state administration share equally the responsibility of framing the curriculum. In fact, the curriculum at the primary level is the result of the joint effort of competent teachers, educational administrators, inspectors and others interested in education.

From the point of view of control and finance, primary schools are of two types:

- (a) Private or non-public schools; and
- (b) Public schools.

Non-public schools are further divided as parochial schools controlled by religious groups and state schools funded by public taxes. There is close contact between the parents and the teachers at the primary level. In short, it may be said that primary education in America is scientifically organised and properly planned.

17.08 Secondary Education

Secondary education in America is of recent origin and is the result of perseverance, endurance, patience and zeal of the educationists of that country. Based on the concept of democracy, secondary education has been made compulsory and universal. As a result of industrial development, education became an indispensable part of social life. Normally all children up to the age of 17 get compulsory education.

Secondary Education in USA started with the opening of Latin Grammar School in Boston in 1635, with the main objective of teaching Latin language and literature with the intention of bringing about qualities of aristocracy. In the 18th century, academies were established, which emphasised on the teaching of useful subjects like political science, philosophy, navigation etc. These academies encouraged the education of women and served the twin purpose of providing useful secondary education and prepared students for higher education. As these academies catered to the needs of the society, they became popular.

Public schools marked the beginning of the third stage in the development of secondary education in America during the 19th century. In these schools, education had a practical and egalitarian basis. The growth of higher education influenced secondary education. The new subjects introduced at the university level had their echo at the secondary stage also.

Since it was ruled by the Supreme Court that tax could be levied for the progress of secondary education, secondary education grew with vigour and speed. Gradually, secondary education became diversified. Socio-economic and industrial development in the 20th century and the two world wars gave greater fillip to secondary education in America.

There was greater demand for skilled workmen and hence secondary, technical and vocational education grew by leaps and bounds.

In the 20th century, education in the USA was reorganised. It contained four classes—IXth to XIIth—running for four years. The major aims of secondary education are as follows:

1. *Health education:* Students are provided with rules and regulations of health and healthy living. They are encouraged to take part in various activities concerning family, community, nation etc. and create a healthy atmosphere.

2. *Command of fundamental process:* They are trained to control their instincts and other fundamental qualities in order to make successful and effective living.
3. *Worthy home membership:* They are trained in the art of having maximum cooperation with the members of the family, which is the first formal agency of education.
4. *Vocational education:* An attempt is made to develop economic efficiency through some vocation or occupation. In addition to the training for the development of interest in some vocation, training in the art of cooperative living with their fellow workers is also given.
5. *Civic education:* Students are trained in the art of citizenship, about their living in society, in the community, in the family and discharge their duties and obligations as citizens.
6. *Education for proper use of leisure:* As an integral part of education, during leisure, students are trained to bring about the development of their physical as well as mental health, through various programmes. American education also tries to bring about morality, character and ethics of the students. Young men and women are trained to shoulder their responsibilities through individual as well as collective education as worthy citizens wedded to the ideals of liberty, democracy and individual freedom.

17.09 Ten Commandments of American Education

American education is guided by the following ten principles:

1. Physical security
2. Equality of opportunity
3. Economic security
4. Freedom and liberty
5. Mental security
6. Fair-play and justice
7. Suitable occupation
8. Active and flexible personality
9. Maintenance of hereditary strength
10. Participation in evolving culture.

Thus the process of progress of American education attempts to develop the ability, aptitudes, and character of the future citizens and provide them with proper guidance.

Secondary education in the USA is expected to achieve and discharge the following functions:

- (a) Integration of knowledge.
- (b) Fulfilment of personal needs and requirements.
- (c) Acquaintance with social values and contemporary life.
- (d) Meeting the requirements of increasing or progressive socialisation.
- (e) Systematising the previous and the present knowledge.
- (f) Establishing interest in different fields of human activities, social progress and means to personal happiness.
- (g) Personal guidance and adjustment of personality.
- (h) Application and employment of progressive methods.

The curriculum and education is being diversified and differentiated to meet the requirements of different aptitudes and interests. On account of this diversification and differentiation, secondary schools in the USA may be divided into various categories. There are specialised schools such as:

- (a) Practical Art Schools
- (b) High Schools of Commerce
- (c) Technical High Schools
- (d) Manual Training High Schools.

There are ordinary secondary schools having Junior high schools and Senior or Higher secondary schools and specialised schools.

Ordinary schools are of two types — Comprehensive schools and Limited schools. Specialised schools meet the requirements of specialisation. They aim at providing vocational and industrial efficiency and education for successful living.

There are also part-time secondary schools such as continuous schools and adult's evening schools for those who are unable to join regular schools with a rich programme of curricular and co-curricular activities. Every attempt is made to develop the total personality of the students. Secondary education is meant for young men and women up to 20 years of age. Education is not confined to books only.

Junior colleges are a typical feature of American education which offer vocational and industrial subjects and also serve as a link between secondary education and higher education. These colleges offer a two-year course and the curriculum is both preparatory and terminal. These colleges serve a very useful purpose, from many considerations.

17.10 Higher Education

Higher education is imparted at the university and the college level. All the states provide free secondary and higher education open to all without any restriction. Colleges and universities are the centres of higher learning which offer specialisation in education starting from graduation as the first step. P.G., Ph.D., D.L. and D.Sc are offered, after successful completion of research work. Higher degrees in technical, vocational and industrial subjects are given to students who acquire higher education in some professional, technical and industrial subjects.

17.11 Aims of Higher Education

USA is a democratic country and hence democracy, individual liberty and social justice are the major objectives of the society, principles which are reflected in evolving higher education. The major objectives of higher education are:*

1. To make them aware of the ways of the modern world.
2. To provide an experimental knowledge of the complex laws and rules.
3. To provide the knowledge of the historical facts of science, and such outlook and philosophy as to enable them to behave in a generous, liberal and educated manner with others.
4. To provide practical knowledge of facts and experiences to have a liberal and generous outlook.
5. To develop a critical outlook and prosperity for scientific and technical study.

The Commission on Higher Education of 1947 laid down the following, as its objectives:

1. To develop the use of creative imagination and intelligence.
2. To inculcate and develop the spirit of cooperation and international outlook.

The Economic Commission on higher education wanted higher education to meet the requirements of a democratic society to enable them to shoulder their responsibilities. The curriculum of higher education is very much diversified in order to cater to different needs of people and society.

17.12 Types of Institutions

Junior Colleges

These are a part of secondary education and serve as a link between secondary and higher education, and run a two-year course.

- a. Ordinary colleges offer curriculum of four years, colleges which are similar to the departments of our universities.
- b. Community or technical colleges are run by private agencies and they impart technical and vocational education according to local needs, they offer semi-vocational or complete vocational education, training of a particular skill, general education and adult/social education.
- c. Liberal arts colleges serve as independent institutions as well as affiliated units of certain universities.

These colleges lay greater stress on the teaching of social and national services and also train the students to acquire skill or specialisation in certain arts, technical as well as vocational subjects.

Land Grant Colleges and Universities

These institutions not only provide higher education in the field of agriculture but also train students for a democratic way of life. As an integral part of American Higher Education, they have national importance. In the eighties and nineties several technical-institutes were founded in addition to half a dozen university departments and as many land grant colleges established under the Morrill Act of 1862.

Universities

There are two types of universities in America, private universities and state universities managed by Boards consisting of people's representatives. These universities have a constitutional status for providing higher education, free of charge in many cases. Postgraduate degrees, Ph.D. and research work is the speciality of these universities.

Graduate Schools

These offer education after four years of college education. Students after completion of their courses in these schools are awarded Master's or Doctorate degrees. Specialised education and training are the aims of these schools.

High Professional Schools

These schools also admit students after four years of college education like graduate schools but offer specialised courses in professions such as medicine, theology, law, teaching and music. Courses last for a period of 3 to 5 years and it varies from course to course. In addition to these, there are also certain technical and engineering colleges that impart education up to the university level.

17.13 Administration of Higher Education

The financial control over the institutions of higher education rests with the state. Based on the maintenance and administration, the higher education institutions may be classified as follows:

1. Institutions under the control of Federal Administration.
2. Institutions under the control of State Administration and Public Bodies.
3. Institutions under the control of religious institutions.

Units of Administration of Higher Education

1. Board of Trustees or Administrative Council consisting of elected and selected or nominated members.
2. Chief Executive Officer called the President or the Vice Chancellor, elected by the Administrative Council.
3. Legislative Body or Advisory Council, which is in charge of teaching and other allied matters. This is similar to the Academic Council of our universities.
4. Dean of the college or college team who is the Chief of the Institution in regard to educational programmes. He or she lays down, administers and supervises all teaching programmes.
5. Dean of students who looks after extra-curricular activities in all higher educational institutions and provides guidance to students if necessary.
6. There is a separate Dean for girl students who is in charge of different subjects or branches of subjects.
7. Business Manager who is similar to the Registrar in Indian universities. He is also the Treasurer, Vice-President or Controller whose main job is to maintain the accounts, i.e., income and expenditure of the institutions.
8. Registrar who looks after the office work of the college or university.
9. Public Relations Officer whose main work is to establish contact with the public involved in university or college affairs.

An entrance examination enables a student to gain admission in a college or university. Certificates are issued to enable the students to go from one institution to another. Each institution of higher education has its own curriculum, and degree programmes of higher education are offered during the summer vacations to inculcate in the students the spirit of citizenship. Education is also offered through correspondence.

17.14 Teacher Education

The supply and training of teachers is the most acute of all American educational problems. The 48 states have different systems of training certification, salary scales and methods of appointment. Normal schools are maintained by all states, universally recognised which offer a two-years course after graduation from a High School. The certificates are recognised as efficient and are accepted, throughout the country, by State Boards of Education. Teachers training developed rather late in America only during the 2nd quarter of the 19th century. Scientific arrangement was made for the training of teachers and the first State Normal School was established. A candidate has to possess the qualifications and requirements such as certain academic qualifications, good record of character aptitude for teaching, physical and psychological efficiency and professional information.

Institution of Teacher Education

Both the state and the private agencies play a vital role in the field of teacher education. The following types of institutions offer teacher education programmes in the USA:

1. Normal schools offer teacher training courses for 2 years. Of late these schools have assumed the role of teacher's colleges.
2. Teacher's Training Colleges or Teacher's Colleges impart higher professional training to the teachers and prepare teachers both for primary and secondary level of education. The students are awarded a bachelor's degree after the completion of their course, for five years. Some colleges also award a master's degree.
3. Schools of Teacher's Education also known as colleges of Teacher's Education, which are affiliated with some university. Of late, these colleges are run as a department of a university. Some also function as full-time institutes for the training of teachers. Completion of a two-year college course is the requirement for enrolment in these colleges. In addition to pedagogy, literature, language and culture are also taught. Graduate degree is awarded after completion.
4. University departments of education. Universities give place to pedagogy as an independent subject in graduate courses. University of Iowa was the first to offer part-time education of teachers in 1873, which was followed by full-time courses by many other universities.

In the 20th century, American educationists realised the importance of imparting education of the technique of teaching, in order to make teaching upto date and successful. Almost all the universities have a separate department of education, which give proper training to future teachers.

The curriculum of teacher education is divided into 2 categories such as general education and training of the method of teaching. Under general education a teacher is taught language and social studies and music. Under the programme of teacher training, a teacher has to study health education, education for mental hygiene, child psychology etc. There is a proper arrangement for practice teaching and practical training. Comprehensive programme of co-curricular activities are also carried out.

Certificates and degrees are awarded by the education department of different states, after appropriate testing and based on the graded ability. There is a great demand for teachers specialised for nursery and kindergarten education. Refresher and fellowship courses are arranged by the universities and colleges to make the teachers upto date and provide higher professional training. Research work is emphasised in the field of education and opportunities are provided.

Teachers of high school grade must have a bachelor's degree in Arts or Science, following at least 4 years study in a college or university. In addition they have to provide a certificate of professional studies in an education department.

In America, the salaries and conditions of service of the teachers differ from state to state. Teachers are provided pension, medical, casual leave and weekly rest. They work for about 35 periods per week for 160 to 200 days per year of 9 month's duration. There are about 25 students in a class.

There is a National Education Association of America which admits all categories of teachers. This body provides professional guidance to the teachers. Thus teachers in the USA are secure in their tenure and get reasonable emoluments.

17.15 Adult Education

Adult education occurs when people beyond the compulsory schooling ages participate in a literacy programme. Adult education caters to all those who were or are unable to acquire education through the formal

channel but are motivated in improving their educational attainments and professional expertise through a continuous process. Adult education in the USA dates back to 1826, when the first Lycium was founded in Massachusetts. It was a voluntary association of "mechanics and farmers" for the purpose of self-culture, community instruction and mutual discussion of common public interests. Hundreds of Lyciums were opened all over the country. In 1885, Chautauqua Institution was started in New York as a summer school for two months, followed by similar courses in other places. University extension was started in 1906 and it is now a regular feature of most universities. A special problem of adult education is the Americanisation of masses of immigrants who could not speak English and often were illiterate. The armed forces undertook an all-embracing programme of adult training and millions of enlisted men profited by their military service.

Today adult education in America, serves a useful method of satisfying the eagerness for learning of the Americans and it has become an aspect of functional and creative importance in the life of American people. Several universities also provide distance education courses.

Aims and Functions of Adult Education

1. To provide education to all members of society and make them aware of their social, political, democratic and economic responsibilities; to enable them to discharge their responsibilities successfully.
2. To make them useful members of family and society knowing their rights and obligations to society, by developing qualities of citizenship.
3. To teach English language and literature, mathematics, geography, music, painting, drawing, science, physical hygiene etc.
4. To acquaint adults with national and international problems and develop qualities of sociability.
5. To develop in the adults, the requisite economic efficiency and provide further knowledge, regarding their occupation and vocation.
6. To provide such education to the physically handicapped so as to enable them to earn their livelihood.

The major function of adult education is to provide opportunities for utilisation of leisure, to develop a liberal outlook, to enable them to

solve their problems peacefully, visualising contemporary problems. It trains rural people in the requirements of agriculture and the use of various equipment.

In the industrial areas, it provides both opportunities for recreation and also further knowledge about their occupations and vocations. It also provides opportunities for the education of art, culture, nature study, tours, dramas etc, in addition to the training in the art of expressing their opinions freely and frankly about the policies of the government.

Organisation of Adult Education

Adult education can be categorised as formal adult education or informal adult education depending on the approach. Institutions such as Universities, Correspondence Schools, Night Schools, Junior Colleges, Labour Unions and Community Projects offer formal adult education, through cultural programmes, study of foreign languages and literature, occupational and vocational training, subjects of occupational, commercial, literary, cultural, recreational and domestic importance, general, literary, social, cultural and industrial education, training in leadership etc.

Community Projects

These are multipurpose projects that include the following:

- (a) Education for the labourers and for civil defence,
- (b) Occupational and vocational training and education for efficiency in jobs and further promotions,
- (c) Education for membership of the family and for social and technical changes,
- (d) Education for creative activities through recreational programmes,
- (e) Education for national and international problems,
- (d) Education for physically and socially handicapped.

17.16 Sources of Finance for Adult Education

Following are the various sources of finances for adult education:

- (a) Grants-in-aid from federal and state administrations.
- (b) Donations from individuals or public bodies, and
- (c) Assistance from universities and other agencies.

Programmes of labour education are organised by trade unions, state administration and government, local bodies and local units of administration, national agencies of labour and various universities and colleges. Programmes of youth education train youths to solve their problems before taking up a job or occupation. Both the government and the voluntary agencies carry out youth programmes and train young men and women for the jobs as well as train them for life.

Programmes of vocational education aim at bettering the economic efficiency and help them to acquire some occupation or vocation, through both part-time and whole-time vocational education. The scheme of paid-apprenticeship enables a student to learn as well as earn. General vocational education programmes include industrial education, commerce and business education, agricultural education, education for home economics, education for vocational efficiency or trade extension which aim at increasing the efficiency and the working capacity of the employees. Land Grant Colleges also provide encouragement and fillip to technical and vocational education, through a triangular programme of research, training and extension programmes. Vocational guidance programme tests the intelligence, aptitudes and the personality of young boys and girls in order to provide them suitable employment. Vocational guidance is provided at each stage of education. Institutions such as the Bureau of Employment, Employment Offices, National Vocational Guidance Association, Vocational Information and Guidance service help in vocational guidance.

17.17 Education for International Understanding

The discovery of America by Columbus and scientific inventions made distances short and opened the door of international understanding. President Woodrow Wilson conceived the League of Nations, which attempted to study the problems of national cooperation and international understanding through education. In 1926, a commission on intellectual cooperation was established to bring about international understanding through textbooks, radio, teacher's organisations and other such bodies. The International Bureau of Education which was established in 1925 at Geneva collected information in this regard and secured official sanction of different nations of the world.

In 1939, USA got affiliated to the League of Nations and established a division of cultural relations. America cooperated with the

United Nations Organisation and planned ways and means for helping the people of under-developed countries in the field of education. Several programmes for cultural exchange with other countries were drawn up, in collaboration with UNESCO. The National Education Association of America is a pioneer organisation in this regard, which in fact helps the establishment of UNESCO and runs its programmes efficiently. The Fulbright programme provides opportunities to people of different countries to understand the culture and life of the people of different countries, to exchange the technical know-how, technicians and mechanics and to understand the cultural, geographical, political and economic knowledge of these countries. Teachers and students are exchanged with full financial benefit to develop international relations and understanding. Some universities have even introduced a subject called "International Education or Relations". About 2,000 institutions and over 50,000 young men and women are engaged in this vital task. Several agencies in the USA provide scholarships and are trying their level best to bring about the development of education for international understanding.

In conclusion, it may be said that American leaders and educationists are very much conscious of the defects of their educational system and are constantly endeavouring to realise in practice the full meaning of the "equality of educational opportunity". Even the most difficult and controversial problem of Negro education and racial equality occupies their attention and federal and state authorities make a total effort to do justice to all sections of the American population.

18

EDUCATION IN UK

“England has proved to the world her exceptional ability to incorporating new and radical ideas in the old inherited system without uprooting it. In education, as in other fields of national life, a similar process is going on, gradually changing the whole school system preserving the outward traditional features but substituting a new social content.”

18.01 Background

England is an island with an area of about 50,000 square miles and is centrally situated, which facilitates its trade and commerce with all parts of the world. Technologically and scientifically, England has been in the forefront. Literacy is more or less cent per cent. All administrative agencies, central and country administration and local bodies look after education. Being economically rich, it provides varied education to the people. The Industrial Revolution of the 19th century influenced education to a great extent and in fact changed the very face of education. Being a rich democracy with a stable government, the educational system undergoes a lot of thinking and planning. Teachers occupy an important place in the society.

Before the 19th century, education in England was in the hands of the churches which had their own system of education. Education then was a costly affair and only privileged classes could afford.

18.02 Pre-primary Education

Education is child-centred and all educational programmes are based on the requirements of the child. The important phase of a child, i.e., between 2 and 5 years is covered by nursery and pre-primary education. Macmillan sisters were the pioneers of nursery education. Fisher Act, 1918 gave a new colour to nursery education. The Second World War

gave further importance to this phase of education. Under the new pattern of nursery education half of the day of the children is spent at home and the other half in school. The need for nursery education was felt due to the growth of industries, the process of urbanisation and the kindergarten movement.

Now nursery education is an integral part of the educational programme. Due to rapid urbanisation, unsatisfactory conditions of family, urban migration, women's employment, research on education and the effect of world wars, there was an urgent need for nursery education. As people started working in offices and factories, looking after children became the responsibility of society which in turn was responsible for creches and nurseries. Kindergarten movement was started by a German Educationist, Froebel, who also added to the importance of nursery schools and in 1874 a Froebel society was formed. Robert Owen, a legendary figure of the Industrial Revolution in England, did pioneering work in the area of nursery education. In 1816, he established an infant school at New Lanark, which included singing, dancing, playing etc. By 1831, home and colonial institutions were established for the training of nursery teachers. The 1862 enactment, the Act of 1870, the Declaration of 1893 and the Education Acts of 1921 and 1914 established the importance of infant education, brought infant education under primary education, adopted the kindergarten system, made attendance compulsory at nursery schools and finally gave a viable definition of nursery schools. The Act of 1944 made provision that all children in the age group of 2-5 years shall go to nursery schools and these schools form a part of the national system, and their aim is to bring about the physical and mental development of children. Education in nursery schools is imparted along with play and games.

There are three types of nursery schools in England:

- (a) Nursery schools
- (b) Nursery classes
- (c) Nursery infant schools.

The duration of nursery schools is between 9 a.m. and 3.45 p.m. Each school admits only 40 children and a garden is attached to each school. The Education Ministry and the Local Education Authorities provide the finance for these schools. There are whole day and half day schools. These schools provide meals and games and the children are trained on the use of their sense organs. The programme concerns various aspects of life.

18.03 Primary Education

The Education Act of 1944 defined primary education as a "full-time education suitable to the requirements of junior pupils who have not attained the age of 10 years and 6 months and full-time education suitable to the requirements of junior pupils who have attained that age and when it is expedient educate together with junior pupils who have not attained that age."

Thus primary education, according to law, is full-time education which is imparted to boys and girls below 12 years of age. Before the 18th century only religious institutions made arrangement for primary education and elimination of illiteracy in England. Hence this period is known as the philanthropic period of primary education.

During the 19th century several committees and commissions were appointed to report on the progress of primary education. In 1811, the National Society for promoting the education of the poor and in 1814, the British Foreign Schools Society were established. In 1839, the Privy Council appointed a sub-committee for studying the educational problems. In 1853, Sir James Graham arranged for a bill which insisted that children working in the factories must be provided compulsory education and that the state should provide loans for the construction of buildings and their maintenance. In 1861, the New Castle Commission made further changes and reforms in the bill and in 1867 a Reform Bill was introduced which gave voting rights to illiterate people.

Under the 1870 Act of Elementary Education, Local Education Boards were directed to open schools in the areas which had no such provision. There were two types of schools — elementary schools run by School Boards and schools run by private agencies. Children between the ages of 10 and 14 years were not allowed to work in factories, but were compelled to be in school between 5 and 14 years and education was free. The Education Act of 1902 made the Local Education Authorities responsible for all sorts of education and the Fisher Act of 1918 ended the realisation of fees in primary schools and it was made free and compulsory. The Hadow Commission and the Spens Report of 1938 made further reforms and established technical schools. All these recommendations were incorporated in the Education Act of 1944.

Aims of Primary Education

The Education Act of 1944 changed elementary education into primary education. The primary education aims at building of character, physical, mental and psychological development, awakening of readiness for further studies, cultural and spiritual education and education of self-realisation. Education in England including primary education aims at self-discipline.

Stages of Primary Education

Primary education in England consists of three stages:

- (a) Nursery education which is meant for children up to 5 years of age and where attendance is optional.
- (b) Infant education or infant schools for children between 5 and 7 years of age, where attendance is compulsory.
- (c) Junior schools for those between 7 and 11 years where attendance is compulsory.

The curriculum in these schools is centred around activity and experience rather than knowledge to be acquired and facts to be stored. The main focus is laid on the lesson of cooperation, universal brotherhood and world citizenship. Junior schools have provision for a playground, assembly hall and gymnasium for 40 students. A good deal of stress is laid on nature study to bring about the development of power of observation.

Administration

The Ministry of Education controls the grant in aid to these schools but not the curriculum or syllabi. The head of the institution is the Chief Executive, who is in charge of the entire administration and management, according to his own likes and dislikes. Hence two schools are similar or alike and each institution is unique. The common features are that they are taught by the playway method, and are trained to acquire knowledge independently, their sense organs are trained in arts and handicrafts. They are taught reading and writing and knowledge of mother tongue for use in daily life. Girls have separate curricula, including home craft and domestic science. Teaching aids and games occupy a vital place in the curriculum. Education is imparted based on the aptitudes and interest of the children.

18.04 Secondary Education

The Act of 1944 gave a well organised national system of education common to all. According to Hadow Committee Report (1926) the children in the age group of 11-15 years were sent for secondary education. The break of eleven plus was selected partly on historical groups and partly for psychological reasons. The post primary education was classified into three branches:

- (a) The traditional academics taught in Grammar Schools or Secondary Schools.
- (b) The technical to be given in the Technical High Schools or Secondary Technical Schools.
- (c) A more practical course to be given in Modern Schools or Secondary Modern Schools.

Prior to the Act of 1944, there was Tripartite system of secondary education which formed the back of secondary education in England.

At present, secondary education starts at 10 1/2 or 11 years and goes up to 18 years.

The Grammar Schools cater for the academically inclined and provide a curriculum of general education which may have a classical, modern or a scientific base. They provide complete secondary education up to the age of eighteen. Public Schools Commission (1961-64) monitored the working of public schools and the School Enquiry Commission studied the whole secondary system.

18.05 Bryce Commission on Education (1894-1895)

The recommendations of this commission formed the basis of the secondary education in the 20th century. Its recommendations were:

1. Need for a change in curriculum or syllabus due to the change in the socio-economic conditions.
2. For setting up an Education Board to offer guidance to schools.
3. Need for appointing Inspectors to supervise the implementation of education policies.
4. Establishment of a separate Ministry of Education in the Central Cabinet with education under the charge of a fullfledged Cabinet Minister.
5. Services of teachers should be made permanent.
6. To lay greater stress on technical and vocational education as it was the need of the hour.

As a result of this, the Central Education Board and the Consultative Committee for Education were established.

The Educational Code, 1902

County Schools and County Borough Councils and Provincial Council were entrusted with the task of running the technical education. Great stress was laid on classical languages.

18.06 Education Board of 1911

The Education Board had endowment institutions and these were run by Local Education Authorities (LEA) under its control. The maximum age was 16 and the duration was four years. Curriculum included English language and literature, geography, history, mathematics, geometry, science, arts and other languages along with English and physical education. Dalton plan and project methods were used to make teaching interesting and efficient and aids like epidiascope, radio etc. were used.

18.07 Hadow Report on Education (1926)

This committee suggested that elementary education be renamed as primary education and that the primary and secondary education should be divided into 3 stages. The first stage should be called primary education up to 11 years, secondary education should be sub-divided into two categories such as pre-secondary education or junior school education and secondary education up to 15 years. Great stress was laid on the teaching of art, music, handicrafts, history, archeology and literature. This report laid a good deal of stress on physical, intellectual and material development of society through children.

18.08 Education Act of 1936

This Act was the second landmark in the history of English education as it solved the shortage of buildings by authorising the government aided schools to spend 75 per cent of the grant-in-aid on the construction of buildings and raising the school leaving age by one year by fixing it at 15 years.

18.09 Spen's Report on Education (1938)

Based on a survey on public schools of England, a White Paper on education was published in 1939. The recommendations of this report were:

1. Greater stress should be laid on need-based practical education.

2. Greater stress must be laid on technical education for the progress of the nation and a three-year course on technical education should be introduced and these schools may be raised to Higher Technical Schools.
3. To provide a uniform education with diversified curriculum to young children, multilateral schools must be established.
4. A variety of subjects were added to the curriculum to make it interesting and useful and have a wide choice.

18.10 Norwood Commission of 1914

To make secondary education more scientific, the Norwood Commission made the following recommendations:

1. Children must find a place for further education according to their interests and aptitudes.
2. Age for admission in a secondary school should be 13 years.
3. Lower schools with uniform standards should be established for children between 11 and 13 years of age.
4. Teachers should guide students in their educational choice.
5. An aptitude and intelligence test should be conducted before enrolling for secondary education.
6. Recommendations dealing with examination systems and regulation of admissions were made.
7. And financial assistance to the students, such as scholarships were made.

18.11 Education Act of 1944

This Act gave an organised shape to Secondary Education of England. The following are the salient points of the recommendations:

1. Secondary education should be the state responsibility and children of 11 years must be provided secondary education.
2. Primary and secondary education must be managed separately.
3. The education authorities must be responsible for primary, secondary and higher education in their respective areas.
4. The age for admission in secondary school may be 16 years.
5. All schools including endowment ones should observe the rules and regulations framed by the Ministry of Education regarding qualification and conditions of service of teachers, methods of teaching, economic conditions, equipment etc.

18.12 Secondary Education Today

Secondary education had two sectors, namely, government or public and private or voluntary sector of secondary education. All secondary schools may be classified under the following three categories, based on the administration and control:

1. County secondary schools.
2. Voluntary secondary schools.
3. Independent secondary schools such as public schools, county secondary schools termed regional secondary schools are run by Local Education Authorities, with powers for the appointment of teachers, promotion etc.

Voluntary secondary schools are run by private bodies and have three categories as stated below:

- (a) Controlled secondary schools which are under complete control of the LEA. These schools have provision for religious instruction.
- (b) Government aided secondary schools which are provided 50 per cent of the expenditure by the government.
- (c) Local agreement schools which are self-financing and hence free in their administration. LEA enter into special agreement with these schools.

There are independent schools outside the control of the state with their own characteristics. To meet the requirements of the interests and aptitudes of pupils at 13 years different types of secondary schools are organised.

Grammar schools for those who want to join the university. The course is for 6 years with focus on classical and modern languages.

They have extra-curricular activities such as physical exercises, games, music etc. Teaching of a foreign language for all and home science for girls is compulsory. Only bright and promising students find admission in these schools and great emphasis is laid on the teaching of classical languages.

Modern schools with their diversified curricula provide education to a majority of students, intelligent, average and dull. In addition to the usual subjects, domestic art, music, crafts, gardening and animal husbandry are taught. Some craft or occupation is taught to make pupils

self-dependent. Playway method is used for teaching and teachers act as friend, philosopher and guide to the students. Technical schools focus attention on certain trades and vocations. There is provision for the teaching of engineering, architecture, agriculture, mining etc. in addition to music, moral instruction and physical exercises. The course runs for 4 to 5 years. In fact, it is the common schools that meet the requirements of secondary education in England.

18.13 Technical Education

There are a lot of provisions for technical education in the UK. A number of institutions impart technical education as mentioned below:

1. Colleges of further education, also known as technical colleges or local colleges or Institute of Technical Education are maintained by LEA or by private agencies. These have their own spacious buildings.
2. Junior Secondary Schools run courses for 2 to 3 years and after completion, the students go over to secondary technical schools. Some schools have National Departments, where students between the ages of 14 and 17 are trained to become good navigators in a period of five years. Courses on engineering, handicraft, agriculture, industry and mining are provided.
3. Evening Institutes of Technical Education are meant for adults and grown-up people to provide training in technical subjects.
4. Technical Day classes offer professional in-service training for greater efficiency for those who are already in some trade. Workers are allowed leave to attend these classes.
5. Art schools and classes are run in the evening to provide education in arts and crafts. These are both long and short term courses.

Comprehensive Schools offer different courses in one school. An attempt is made to provide education of the Grammar schools, modern secondary schools and technical schools and classical subjects under one roof. A number of elective subjects are offered. Students can change from one course to another.

18.14 Examination System

The School Leaving Examination was started in 1917, Secondary Schools Examination Board was set up to bring about uniformity in the pattern of examination in the whole of the country in 1945. Public views were invited and examination system is functioning on scientific lines.

Since 1951, there is only one Certificate Examination. A new examination board with representatives from university, LEAS and teachers has been set up. Students above 18 years only can appear at these examinations. Entrance examinations are also conducted at the time of admission to certain schools on scientific lines.

18.15 Higher Education

University or higher education should be conceived as part of further education, as further education embraces almost every form of educational activity engaged in by the adolescent and adult population beyond the school stage. It is the duty of the LEAS to enable bright students to further their education, provide full or part-time education for persons over compulsory school age and leisure time occupation in such organisations, cultural training and recreative activities suited to the requirements of the students over the compulsory school age. The LEA may take help from voluntary organisations, universities and other such bodies. The Ministry of Education as the highest authority lays down the National Policy in this regard.

18.16 University Education

Universities are autonomous bodies and have their own programme of education. They are governed by the representatives of teachers and other educationists. University education, of late, has become very popular and the development of science and technology has added a lot to the field of higher education. Oxford and Cambridge are the two oldest universities in England. England has a tradition of residential-cum-unitary teaching universities in addition to certain Federal Universities. The UGC offers grants to the universities but the administration rests with the Senate and the Executive Council or Governing Council or Governing Court. The government has no control over the universities. The Senate lays down policies and programmes and the Governing Council implements them. Teachers are represented in the Senate. LEA or the government bears a major share of the universities expenditure. In addition universities earn their income through fees, endowments, donations etc. but they are free to plan their expenditure.

18.17 Teaching

Oxford and Cambridge follow the tutorial system which facilitates the teacher-pupil interaction. Lectures and tutorials are the pattern

followed. During the tutorials, teachers have to play a responsible role and act as a guide and motivator. Science students have practicals instead of tutorials, in the laboratories where the demonstrator acts as a guide. There are B.A., B.A. (Hons), M.A. and research degrees. Research work and dissemination of knowledge are very much encouraged in the universities. Well equipped laboratories facilitate research work in science subjects. There are three categories of teachers, namely, professors, readers or lecturers as in India, in addition to senior and assistant lecturers.

There are two types of students:

1. Residents who live in hostels or halls attached to the universities.
2. Day scholars are those who live with their families or have separate arrangements for their stay. There is the arrangement for the development of corporate life leading to further knowledge. Games, sports and debates and seminars are arranged for them. The habit of national and international living is inculcated in the students, through contact with students of different universities and different parts of the world. London University has a separate department for girls, though co-education institutions are also there.

Oxford and Cambridge carry out teaching programmes both in the morning and evening. The afternoon is spent in games, sport and other cultural and curricular activities. The teaching programme is divided into four parts:

1. Programme of lectures.
2. Physical activities such as games and sports.
3. Library and study room.
4. Group games and group activities.

Thus an attempt is made to bring about an all-round development of the personality of the students.

18.18 Further Education

Further education was started in the beginning of the 19th century as the need for raising the efficiency of technicians, such as electricians, mechanics etc. was felt. Public schools and institutions for adults were started. Trade Unions established institutions for scientific and technical education. In 1899, a National Council of Adult Education was established. Universities also arranged extension lectures for

working people. In 1905 the Worker's Education Association (WEA) was established. After the Act of 1944, a national scheme of further education has been drawn up. A national and regional advisory councils were also launched. LEA were entrusted with the responsibility of further education. Voluntary organisations such as standing conference of Youth Organisations, National Institute of Adult Education and Worker's Educational Association also coordinated with the LEA's.

Programmes of Adult/Further Education

Education for industry and commerce ranged from evening classes to the study of technical and advanced subjects. There are district evening schools for school dropouts and left-outs which offer part-time courses to help in their jobs. Teachers and persons from industry and commerce do part-time teaching in these classes. Specialised subjects like engineering, technology etc. are carried on in technical and commerce and domestic science colleges. There are also colleges meant specially for further education, which have part-time students. Representatives from industry and commerce as well as members of the Education Committee serve on it. Local needs are emphasised in the field of further education. Finances are met by the grants-in-aid of the government and the LEA and fees collected. Persons passing the examinations conducted by the professional bodies become members of these bodies. Also a three year's part-time study represents an ordinary level national certificate and the five years study represents a higher level certificate.

An attempt is being made to improve the standards of scientific and technological education in further education. There are colleges of architecture, domestic science etc. Training is provided also for vocational, industrial and commercial courses. There are county colleges which provide education for those between 15 and 18 years of age but are employed. The Act of 1944 made it compulsory for employers to release their young employees to attend county colleges and receive general and vocational education for one day in a week.

18.19 Agricultural Education

The Ministry of Education and the Ministry of Agriculture are concerned with agricultural education pertaining to agriculture, horticulture, gardening etc. Farm institutes provided by LEA offer full-time courses of 1 or 2 years to young people in rural areas in agriculture or horticulture. In addition, other organisations such as Women's

Institutes, Towns Women's Guilds and young farmers' clubs also provide agriculture education.

18.20 Liberal Adult Education

Adult education promotes the liberal education for adults. It is an integral part of the whole education. In fact, adult education is a movement involving an attitude to life and to social and economic development. Voluntary organisations contribute a lot in this area. The worker's education association is the most important body closely identified with adult education. Adult education includes a great variety of education and work. Women's institutes arrange for further education for women. Rural women meet at community centres one evening every week to listen to a lecture or see a demonstration or some activity of domestic value, meet their neighbours and engage in social activities. Urban women are provided such facilities by the Town Women's Guilds.

In addition to the Workers Education Association, other voluntary organisations that play an important role in adult education are:

1. Institute of Adult Education
2. The Educational Settlements Association
3. The Women's Institutes
4. The Rural Community Councils
5. The National Adult School's Union
6. The University Extension Services
7. British Drama League for Healthy Recreation
8. London County Council
9. Voluntary Colleges for Leisure-time Education
10. Village College Movement
11. Residential Colleges
12. People's Colleges.

Youth Services

It is a part of adult education which aims to keep young men physically and mentally fit. Voluntary bodies play a vital role in youth education. Bodies like Boy Scouts and Movements, Girl Guides, Browning clubs etc. are the nuclei of these youth services. Cadet Movements provide training to young men who want to go for military jobs. Clubs for boys and girls serve as social centres where young men may go for recreation and social purposes. The ministry of education and LEA are responsible for youth services and they coordinate with voluntary agencies. YMCA

and YWCA also provide youth welfare programmes. Finance is provided by the Ministry or LEA.

Programmes for Adults

LEA provide playgrounds for football, hockey and cricket, swimming pools, and clubs for adults. Industrial and commercial concerns also provide for social and recreation facilities to their employees. LEA make arrangements for dramas, music and paintings. Drama festivals are organised. The Central Council of Recreative and Physical Education coordinates the activities of various clubs acting in different fields of sports and games. Libraries and reading rooms provide recreative and education facilities to adults. The Library Association at the national level coordinates the activities of all libraries. Thus there is proper arrangement for further education in England in which LEA play a vital role.

18.21 Special Services in the Education of UK

In order to take care of the physical and mental health of the children, the Education Act of 1944 has arranged the following special services under the school medical and health services. School boards employed a part-time medical officer who was responsible for the fitness of the children for admission to special schools. LEA were authorised to arrange for medical inspection. Physically and mentally handicapped or maladjusted children were given special care. The most important principle underlying the provision of school medical service is that a child at the school has access to whatever medical advice he may require or whatever medical treatment may be needed. It is, in fact, an essential part of the education service. There is effective coordination between school medical, dental services and national health service. The school canteens provide mid-day meals to students.

18.22 Education of the Handicapped Children

The Ministry of Education and the local education authorities make arrangements for the education of the handicapped children. Special schools are provided for the handicapped children such as the blind, partially sighted, deaf and partially deaf, delicate, diabetic, educationally sub-normal, epileptic, maladjusted, physically handicapped, children with speech defects and children with dual and multiple handicaps. There is a child guidance service which tries to resolve the problem of these maladjusted children. There are children

guidance clinics where there is a team of psychologists and psychiatric social workers. There is school psychological service which is run by LEA. There is proper arrangement for research in education which is looked after by the National Foundation. There is a programme for youth employment services, which attempts to provide jobs for the young boys and girls who leave schools. This service is the responsibility of the Ministry of Labour and the Ministry of Education. There is the Education Welfare Service which is responsible for taking care of the welfare of the students.

18.23 Types of Schools

There are three categories of independent schools, namely, preparatory schools, private schools and progressive schools. Preparatory schools are divided into day preparatory school and residential preparatory school. The main purpose of these preparatory schools is to prepare students for competing in the entrance examination to public schools and other scholarship examinations. Private schools charge fees and are patronised by people who do not want to send their wards to state schools. Progressive schools impart education in a psychological manner and enforce in-built discipline. These schools prepare students for public examinations and attempt experiments and innovations in education. These schools offer science and arts subjects, classical as well as modern languages.

Grammar Schools

In order to meet the individual differences in the aptitudes of students, different types of schools are established. Grammar schools are of very old origin. These schools are called Grammar Schools because they laid great emphasis on the teaching of classical languages. These schools impart education to students who go for higher education in the universities and have an aptitude for classical learning. Students enrolled here have a higher I.Q. as compared to students of other secondary schools. These schools offer a course for the duration of 5 to 6 years with emphasis on the learning of modern and classical languages. After completion, students go for higher education in the universities and enter the profession of medicine, law or the church. Grammar schools are more popular than other schools because they are old, enrol more bright and promising students and prepare students for higher education as well as the entrance into different vocations and trades.

Public Schools

Though called public schools, they are not open to all. Children belonging to the high socio-economic group go to these schools to acquire a specialised training. These schools are connected with some religious denomination which arrange for religious instruction and collective religious prayer. As the fee charged is rather high, only rich people can send their children to these schools. These schools adopt two methods of education:

1. *House method* in which students of different classes and categories are divided into groups of 50 each and are placed in charge of one House Master, who is responsible for the moral, intellectual and physical development of the students.
2. *Prefect system of Education* in which grown-up students of higher classes look after the students of lower classes. Prefects are selected from amongst the students, who are disciplined and good at games. In addition to classical languages, mathematics, science, social studies and other subjects are also taught.

There is considerable scope for games and other curricular activities. Great stress is laid on cultivating the spirit of cooperation. These schools are very successful and are looked upon with respect and reverence. These are more concerned with the development of character and the sense of morality in the students and teach them the lessons of self-reliance, self-sacrifice, truthfulness, honesty, sincerity and other moral and spiritual values. Being residential schools, they are properly equipped and have close relations with universities like Oxford and Cambridge.

19

EDUCATION IN USSR

19.01 Background

The present Union of Soviet Socialist Republic is a federation of fifteen national Republics, and the functions of the government are divided between the Union and the Republics. No Republic except Ukraine has a Ministry of Higher Education. Education is a Union subject and all universities and technical colleges are directly under the Union Minister for Higher Education. The original Russian state system of education was founded by Catherine II, in 1783. It was free, secular, co-educational and common to all groups of population including the serfs. All schools were free and common to all groups after completing secondary education, all were free to go to the universities. Poor students were given state scholarships. It was the first democratic school unique in Europe.

In administration, Russia was highly centralised, the local authorities had a very limited form of self-government. Secondary and higher education were under the direct control of the Ministry of Public Instruction and only in the field of elementary and adult education, was there some scope for local initiative. The academy of sciences occupies a unique distinction of being under the direct control of the Council of Ministers of USSR. The Union Ministry of Culture is concerned with the promotion of art and literature. The policies of education are laid down by the state with the coordination of the Planning Commission "Gosplan". Sixty to 70 per cent of the state's saving is spent on education which is free and compulsory. Federal Ministry of Education exercises overall control over the educational set-up. The linguistic units have full freedom regarding the educational set-up. State, factories and farms provide finance for education. Inspectors appointed by the Ministry of Education look after the working of the schools and provide counsel to the heads of the institutions who occupy an important place.

Teachers are given all respect and honour. Education in the USSR is more or less nationalised.

19.02 Objectives of Education

Education in the USSR is used as a weapon to strengthen the state and build a classless society. Soviet Union is a socialist state striving towards communism. It is governed by the economic principles based on Marxist-Leninist theories. There is private ownership of the means of production and distribution of land. The principle of equality—political, social, economic and legal—for races, nationality, religions and sexes have been established and are in full operation.

The education system of a nation is ultimately guided by its social objectives, for the very objective of education is to enable the citizens to discharge their social and political obligations efficiently. Lennin once remarked: "You cannot build a communist state with an illiterate people" to which statement the rulers of the USSR are fully alive. Their aim is to make the country achieve the topmost position in the field of science and technology. Unless the people are culturally developed, physically fit and mentally alert, the society can never march towards communism. In short, all-round development of the citizen is the ultimate aim of Soviet education. Love for the motherland, feeling of brotherhood for fellowmen, humanity, honesty, integrity, and social labour are the main pillars of Soviet education. Several aspects, intellectual, moral, aesthetic, physical and polytechnical are intimately integrated. Attempt is also made to develop mental aptitudes and interests, to bring about efficiency of memory, concentration, imagination, power of thinking, communication etc. There is also provision for aesthetic education, education of fine arts and physical education. In education, every attempt is made to develop healthy citizens, with aesthetic feelings, zest for life and zeal for building up society. Young men and women are acquainted with various processes of production, through polytechnical education. In fact, education in Russia is geared to the needs and requirements of life and society, and science education is given major emphasis. As education is based on the philosophy of dialectical materialism there is no place for superstitions and false notions of life and society. Nature study and character formation form an integral part of education. Students are encouraged to establish intimate contact with contemporary life and society. They are made perfectly aware of the dignity of labour and are encouraged to come in contact with the workers in the field of industry and agriculture.

According to Article 121 of the Constitution of USSR, every Soviet citizen is entitled to receive education. Seven years of schooling is free and compulsory, which include technological education, agricultural education, education about farms and factories and mechanical education. Education in the USSR is guided by the objectives and policies laid down by the Communist party, which is the only agency offering education. In regard to education, there is no discrimination among nationalities, castes and creeds, and there is equality for all nationalities, castes, and creeds and sex. Education is imparted through the mother tongue of the child and there is a uniform pattern of education throughout the country. There is no relationship between the church and the religion and the education in Russia is literally free from the influence of religion and church. In regard to the secular character of education, Soviet Union is similar to India.

In USSR there is close coordination between the schools and the public guardians' associations try to establish such a link. The Soviet public take a keen interest in the problems and debates and discussions concerning educational needs of the state. In addition, Trade Unions, youth communist leagues and other public organisations also take an interest in the field of education. Guardians provide financial help to the schools and take the responsibility of cleaning and decorating the school, to protect the health of their children. Every school has a parent's association, which works after the development and expansion of education and the leisure time activities of the children. There is also a committee of parents or guardians for each class which are sub-committees of the school parent's committee. Thus guardians or parents play a vital role in the field of education in the Soviet Union.

19.03 Pre-primary Education

Pre-primary education in the Soviet Union is very much indigenous and is scientifically planned. It starts at the age of 3 years and continues up to the age of 7 years, with the aim of developing a scientific outlook and bringing about the growth of healthy boys and girls. Pre-primary education is a result of experiments and guided by the needs and requirements of the age and psychology. Pre-primary education in Russia is the responsibility of the state as it is the duty of the state to look after the children of the working mothers and it is the responsibility of the Ministry of Health. In addition, various agricultural and industrial establishments have established schools for pre-primary education.

19.04 Types of Pre-primary Education

Nurseries

In order to develop good communists, nurseries are so planned to meet the objectives of the communist way of life. Nurseries in rural areas take care of the children of the mothers who work in agricultural concerns and farms. Urban nurseries look after the children of the mothers working in industrial concerns and factories. These nurseries are under the charge of specially trained doctors and nurses and a good deal of attention is paid to the health of the children. Educational activities take only a secondary place here. They are open so long as the mothers are at work, sometimes even late in the evening. Buildings are quite spacious, healthy and well ventilated.

Nurseries are scientifically equipped with scientifically placed and manufactured toys and furniture in order to develop in children a sense of beauty, rhythm and health. These nurseries focus attention on developing healthy habits such as fraternity, a spirit of comradeship and good neighbourly relations. Parents cooperate very well with the working of the nurseries and, parents' meetings are held regularly.

Kindergartens

After the nursery stage, children are taken care of by the kindergarten. The aim of the kindergarten is also to bring up good communists. These schools do not follow the methods of Montessori or Froebel. The Ministry of Education is responsible for running these kindergartens. Regarding finance, various industrial and agricultural organisations co-operate with the Ministry of Education. Parents also contribute. In addition to the health aspect, the educational needs of the children are also taken care of. Teachers often meet the parents and advise them about the life of their children. Great stress is laid on the psychology of children who are taught according to the principles of psychology. Children are taught dance, music, art, exercises, and programmes of physical education, games and sports and visits to the place of agricultural and industrial importance are also arranged. During literacy programmes, poets and writers are invited to recite their poems and acquaint the children about the different aspects of literature. Much stress is not laid on formal teaching except on the three R's. In order to develop the speech and enrich the vocabulary, children are given training in speech.

Teachers of the kindergarten are given special training to treat the children with love, affection and sympathy, to give individual attention, and to develop the students in an atmosphere of love, sympathy and kindness. Apart from the head of the institution, there is one teacher for every 25 children in each kindergarten. There is a doctor, a trained nurse, a special teacher for music and art in addition to the cook, bursars and maids.

Along with the permanent kindergarten there are seasonal kindergartens as well, which serve for a few months.

19.05 Primary or Elementary Education

Compulsory education begins at the elementary stage of education, as preprimary education is not compulsory in the Soviet Union. After the seventh birthday every child, whether rural or urban, must be in a school, for four years of primary education. The duration of the school timing is from 9 a.m. to 2 or 2.30 p.m., depending on local climatic conditions. The school works for six days every week, and the duration of each period is 30 minutes. There are single-room four-grade elementary schools, i.e., for every class, there is a room and there are four classes. Strict discipline is enforced and each student is told to observe the code of conduct, laid down for them. Children below 16 should not be seen outside after 10 p.m. and are not allowed to see films frequently. One teacher teaches all the subjects and goes up with the class.

Curriculum

The Ministry of Education lays down the syllabus for the elementary education and the curriculum is life oriented. Reading occupies an important place during the first 3 years and writing is taught only during the 4th year. The syllabus for the first 3 years includes arithmetic, art, music, physical education and the Russian language with reading, writing and elementary grammar. History, geography and nature study are taught during the 4th year. Homework is an integral part of Soviet education. It ranges between 1½ hours (class I) and 3 to 4 hours (Class X). Both the Russian language and the mother tongue are taught simultaneously. Teaching of history and geography is made practical and made interesting by visiting places of importance. Examination is oral at the primary stage. Examination at the end of class IV is called "Transfer Examination" as it is the last one of this stage of education and it only decides whether the student has completed the elementary

the last paragraph, and is eligible to enter the next stage. Examinations are prepared by the relevant ministry. From 1990, mathematics is written based on the study of the students. The examination is done continuously and progressively, and the examination board is made up of teachers and officials.

19.06 Secondary Education

Examinations for entry to the 10th or 11th grade (Senior Secondary Education) are held at the end of year 9 and 10 respectively, in the second term (beginning in April at the end of January and February). These exams are done separately, however should be done in sequence in some countries (Pakistan, Malaysia, Kuwait). Examinations are conducted using question banks prepared by the relevant ministry. Examinations are done in groups of 10 to 15 years from classes 10 to 12. There is no entry after 12th grade. Entry into secondary education is done continuously and should be completed by the end of the year. Examinations are done in groups of 10 to 15 years from classes 10 to 12. There is no entry after 12th grade. Entry into secondary education is done continuously and should be completed by the end of the year. Examinations are done in groups of 10 to 15 years from classes 10 to 12. There is no entry after 12th grade. Entry into secondary education is done continuously and should be completed by the end of the year.

19.07 Senior Secondary Level

Examinations for entry to the 13th grade (Senior Secondary Education) are held at the end of year 12 and 13 respectively, in the second term (beginning in April at the end of January and February). These exams are done separately, however should be done in sequence in some countries (Pakistan, Malaysia, Kuwait). Examinations are conducted using question banks prepared by the relevant ministry. Examinations are done in groups of 10 to 15 years from classes 10 to 12. There is no entry after 12th grade. Entry into secondary education is done continuously and should be completed by the end of the year. Examinations are done in groups of 10 to 15 years from classes 10 to 12. There is no entry after 12th grade. Entry into secondary education is done continuously and should be completed by the end of the year.

1908 Higher Education

Higher education in India from 1857 to 1908 is a period of rapid growth. The government of India, the British Government, and the Indian community all played a role in the development of higher education. The British Government, through the India Office, provided the main financial support for higher education in India. The Indian community, particularly the educated middle class, also played a significant role in the development of higher education. The growth of higher education in India during this period was due to a number of factors, including the increasing demand for educated personnel for the government and the private sector, the influence of the British Government, and the efforts of the Indian community.

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1. Government of India
2. British Government
3. Indian community
4. Education in India
5. Education in India
6. Education in India

The growth of higher education in India during this period was due to a number of factors, including the increasing demand for educated personnel for the government and the private sector, the influence of the British Government, and the efforts of the Indian community. The British Government, through the India Office, provided the main financial support for higher education in India. The Indian community, particularly the educated middle class, also played a significant role in the development of higher education. The growth of higher education in India during this period was due to a number of factors, including the increasing demand for educated personnel for the government and the private sector, the influence of the British Government, and the efforts of the Indian community.

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Universities are centres of research and discoveries and as such devote considerable time to research. Teaching of physical science is greatly emphasised, to enable Russia to progress in the field of science and technology. Proper arrangement is made for the higher education in the field of art, music etc. Marxism, Leninism and dialectical and historical materialism are compulsory subjects, in addition to the learning of a foreign language, physical education and military training. Strict control is maintained on attendance. Teaching is carried out through lectures, seminars and consultations. Practical work receives great attention and it is done in laboratories, workshops and factories. All universities have well-equipped libraries and spacious reading rooms.

19.09 Examination System

Examinations are internal as well as external, oral as well as written. There is a half-yearly examination and a sessional examination. Grants are based on the results of these examinations. Annual examination decides the adequacy of the specialisation. After successful completion, a diploma is awarded. For a doctorate degree, a thesis should be submitted to other experts in the particular area and be subject to their critical analysis.

Higher education in the USSR is for a period of 4 to 6 years. Though a fee is charged for higher education, most of the students receive scholarships and stipends, which cover the expenses of higher education. Higher education is also offered through correspondence courses, which is becoming very popular among those who are not able to attend the universities or institutions of higher education. This facilitates the workers in industry, agriculture or education, living in remote rural areas to receive higher education without causing any interruption in their work. The curriculum, syllabus, system of examination, admission procedure and rules are similar to those of regular streams. The degree or diploma obtained through correspondence education is also recognised as equivalent to the degree awarded to the regular students.

Thus the higher education system in the Soviet Union is properly and scientifically planned and organised.

19.10 Teachers' Education

The teacher is the central person in the educational processes of the USSR. Russians have a high regard for learning and a teacher is

considered to be a person who is learned. Hence proper training is given to the teachers who are responsible for moulding the future generations. Teachers are paid a handsome salary and state awards are given for meritorious and accredited services. These awards are very much recognised and respected. Teacher can take part in politics and many have been elected to Supreme Soviet, Republic Soviets and village, town and district councils. As conscious citizens, the teachers are aware of all the problems facing the country.

Teachers' Training

There is a rich programme for the training of teachers, in the following categories:

1. For the primary teachers - grades I to IV
2. For middle grade teachers - grades V to VII
3. For the secondary teachers - grades VIII to X

Training is offered at two levels, pre-primary and primary levels and post primary, i.e., V to X. Three types of institutions offer training for teachers:

1. Teacher's training schools prepare teachers for primary schools.
2. Teacher's training institutes which offer training for middle school teachers.
3. Institutes of education or pedagogical institutes for teachers of secondary level.

There are special schools for the training of the pre-primary and kindergarten teachers. Teachers have to study Russian Language and Literature, Marxism and Leninism, History of the Communist Party, Constitution of USSR, Education, Psychology, Physics, Manual Work and methods of teaching various subjects such as Arithmetic, Geography, Nature Study, History, Drawing, Writing, Singing and Physical Training, as compulsory subjects. They should also do manual work on workshops and on the land.

Every teacher has to undertake supervised practice teaching. Music and instrument playing are also taught. Teaching institutions are well equipped with libraries, reading rooms, gymnasiums.

Examinations

There are two categories of examinations for the teacher trainees:

1. Internal examination which is conducted twice a year.

2. State examination which is conducted only once at the end of the course. A student can become a teacher only if he/she has passed this examination.

The course runs for two years for middle grade teachers and 5 years for upper grade classes. There is no final examination for practice teaching. The work is judged based on the work of the whole year.

Correspondence Course

There are also evening courses and correspondence courses for the training of the teachers. The courses of study and examination are similar to the regular course. Correspondence students have to submit written assignments and attend periodical special sessions organised by the institute.

In-service Training

There is a rich arrangement for the in-service training of teachers. Teachers Advancement Institutes are set up in every region for the purpose of "advancing" the ideological and theoretical standards and pedagogical qualifications of teachers, to help teachers in self-education, or organise on consultations and methods and exchange of learning experience in pedagogical activities and to acquaint the teachers with the latest political and scientific literature with books and syllabi and methods.

As well organised bodies, these institutes provide further training in methods of teaching through courses and seminars for teachers of various subjects and help both the primary and secondary teachers in schools in their day-to-day work. Teachers of the Soviet Union are never too old to learn and add to their knowledge and experience.

Trade Unions

Teachers have their own trade unions for different categories and republics. All teachers are members of their respective trade unions which organise courses for the improvement of the qualifications of the teachers, and proper utilisation of leisure. The academy of the educational services also helps to improve teachers' qualifications. Publications and readings are also organised. A library is attached to each teacher's house. Teachers in rural areas are given land and quarters to encourage sincere work.

19.11 Adult Education

The whole population between 8 and 50 years is now literate. But the

authorities are not content with the mere mastery of reading and writing. Adult education up to the standard of the junior secondary school is of primary importance to all, for "that is the necessary basis on which to build any further education project" points out Beatrice King, in his book, *Soviet Russia Goes to School*. To speed up the fight on illiteracy, the government set up special schools for the illiterate and the semi-literate in addition to the regular schools.

Prior to the October Revolution of 1917, 72 per cent to 90 per cent of Russians were illiterates but the picture is just reversed as almost the entire population in the age group of 8 to 50 years is literate as the rulers realised the fact "that communism could not flourish if the population is illiterate." The great leader of the Soviet Union, Lenin, said: "An illiterate person is outside politics and must be taught alphabets first and cannot build a communist state with illiterate people."

Campaign for Literacy

A vigorous campaign for adult literacy was launched in 1919 to make the illiterates in the age group of 8 to 50 years literate and also to teach the Russian language. Special schools were started for adults, for young or adult workers and farmers and for educational and cultural jobs and to abolish literacy.

Correspondence Schools

These schools provided literacy and primary or secondary education through correspondence and consultation centres. Staff members provided guidance regarding education, visited the students and helped them to solve their difficulties. These courses were widely advertised through the press at the bulletin boards of farms and factories. Groups of 10 to 15 get necessary guidance in the consultation centres. Teachers in correspondence schools become up-to-date through continuous research.

Adult Secondary Schools

A teacher on duty in these schools solve the students' problems. These schools have well-equipped libraries, with specially written books for adults, special rooms, reading rooms which are open till late in the night. These students can appear for matriculation examination and after successful completion can join higher education or universities.

Evening Universities for Workers

Courses similar to the regular ones are offered in these institutes which

are located in all urban centres. These are mainly conducted by the concerned industrial ministry trust, administrative or economic or agricultural ministry which are in need of specialists. These universities also are equipped with study rooms, libraries, laboratories, reading rooms etc. These universities offer a five-year course and for examinations, adults are allowed leave with pay. Brilliant technicians and leaders have come out of these universities.

Industrial and Agricultural Academics

These are run by the government and offer a 5-year course. People with industrial and agricultural experience, with ability to plan and organise, with initiative, originality and foresight are only sent for further education. Students are released for five years for further education with scholarship and family grants. Different trade and professional unions also provide higher education to their members in order to improve their qualifications and efficiency.

In rural areas, a 'Rural Hut' is the centre of adult education. Generally a lady is in charge of these huts. A library and reading room are attached to these huts, which organise cultural programmes.

Apart from the above-mentioned institutions, there are several other institutions that help in adult education and dissemination of culture. They are: Houses of culture, clubs, museums, lecture centres, libraries, parks, etc.

Sunday universities also provide adult education on Sundays. Local councils run lecture bureaus in rural and urban areas.

Libraries

There are varieties of libraries in Russia. Stationary libraries are located in one place and serve as reading rooms and lending counters. Mobile or travelling libraries go from place to place with a collection of books and magazines. There are government scientific libraries and public libraries. In addition to libraries of institutions and organisations, juvenile libraries and school libraries have also been functioning.

Museums, cinema and theatre also play their role in the spread of education. Press and publications such as dailies and periodicals carry useful articles on adult education.

In the USSR, every attempt is made to bring about upto-date publications on adult education.

EDUCATION IN CHINA

20.1 Background

China is one of the biggest countries of Asia with the highest population in the world. It is under the communist regime but there is an awakening and an attempt to bring it under democracy. China has a long history of its culture and civilisation, which is about 4,000 years old, known as the 'civilisation of yellow valley'. The influence of Buddhism brought about an all round, economic, social, cultural, educational and literary development. Scholars of China visited India to acquire higher education and knowledge of cultural affairs. After the 14th century, Britain and other European countries influenced Chinese education and culture. Modern education had its beginning towards the end of the 19th century, and education was re-organised and new agencies were established.

20.02 Pre-primary Education

Two types of institutions, namely kindergartens and nurseries offer pre-primary education. Kindergartens were started by private and voluntary organisations, missionaries, local bodies and counties. Nursery schools were started during the 20th century. Children of 3 to 6 years of age are enrolled and are retained for 2 years. These are attached to the degree colleges and teachers' training institutes. New methods and techniques of teaching are experimented in these institutions.

20.03 Primary Education

Primary education has a 6-year curriculum and schools are established in both urban and rural areas. Primary education is compulsory in China. Smaller cities and towns have 4-year junior primary schools. A child of 6 to 10 years are admitted in these schools. Children between 10 and 12 years go to 2-year senior primary schools. Supplementary facilities are also available for those who cannot join the regular system.

20.04 Secondary Education

The following institutions provide secondary education in addition to technical schools:

- (a) Secondary schools where the course duration is 6 years. It is divided into 2 wings such as junior division and senior division. Each offers a 3-year curriculum. Besides the usual subjects like Chinese language, another foreign language, History, Geography, Civics, Arithmetic, Art, Music, Science and Psychology, Hygiene, Scouting and Physical Training are also taught at the junior secondary level.
- (b) At the senior secondary level, Logic, Foreign History, Foreign Geography, and Military Science are taught with the aim of preparing students for higher education. Military training at this stage is compulsory. Institutions of secondary education are maintained by the government and the private bodies. There are certain National Institutes of Secondary Education which are financed by the central or the state government.

20.05 Vocational and Technical Education

A great deal of importance is placed on vocational and technical education in China and rich arrangements are made for teaching agriculture, commerce, industry, home economics, medicine, law etc. on the lines of the Russian pattern of technical education. Technical education is part and parcel of secondary education. This is also divided into Junior and Senior wings, each offering education for 3 years. After completion of primary education, a child enters the junior wing of technical education and then the senior level. Education includes technical and practical training in addition to the general subjects. Separate technical schools provided education to these who have completed the primary stage and are between 12 and 20 years of age. For the boys between the age group of 15 and 25 years and who have passed the Junior Secondary examination, special technical schools provide education for a duration of 3 years. Education at this level is free. Technical schools have laboratories and workshops to provide practical training for the future technicians.

20.06 Social or Adult Education

Adult education in China is called social education, which is intended to provide education to illiterate or semi-illiterate adults in the age group of 19 to 45 years. To eradicate illiteracy several institutions of social

education were opened. Even students of primary and secondary schools are expected to educate and train their neighbours and illiterate members of the family. As the country is vast and the population is large, the government alone cannot undertake the sole responsibility for social education. Many private and voluntary organisations organise lectures, establish libraries, reading rooms and carry out cultural and physical programmes and provide medical service and education of elementary hygiene to the illiterate and semi-illiterate adults.

Social education in China is the responsibility of the state government and local bodies. Social education includes literacy, general education, industrial and agricultural education, training in technical and commercial jobs and civic education. Labour education is a part of social education and it trains labourers for industrial and agricultural jobs. In addition to literacy, community education centres supervise the working of social education. Even higher education institutions such as degree colleges cooperate in the task of adult education. Social education is controlled by the Ministry of Education, which prescribes textbooks, curriculum and the syllabus. Geography, History, Health, Hygiene and Sanitation, Agriculture, Commerce, Technology and Engineering, Physical and Industrial education are taught. The government provides financial growth-in-aid to the institutions which undertake social education programmes. Many religious institutions offer education for the children of their followers. Schools are subjected to rigid discipline of the state and have to seek recognition from the state. The values of communist society are compulsorily taught, due to the regimentation in China.

20.07 Campaign for Adult Education and Anti-illiteracy

After the founding of the People's Republic of China in 1949, the people's government at all levels made efforts on a war-footing to eliminate illiteracy and develop adult education so as to relieve the labouring people of the pain of being illiterate and to utilise better the resources of human intelligence. Among the workers and staff members illiteracy has been basically eliminated. The rate of illiteracy among peasants markedly decreased, thus ending an era when villagers were largely illiterate. They are inclined, as a result of education, to believe in science, do away with superstitions and abolish outmoded customs and habits, a profound change being brought about in ethics and mental attitude. Many have made technical innovations in scientific farming, etc. Having mastered science and culture and having their intelligence

tapped and redoubled, they are able to play a better role in developing the civilisation. The specific steps taken in this direction are:

1. Under the unified leadership of the people's governments, departments of education or industry at all levels have set up adult education oriented administrative bodies.
2. Flexible and diversified forms of schooling are adopted to suit the study time to local conditions and offer a programme including politics, culture and technology. Thus adult education is characterised by extensiveness, mass participation and variety. Enrolled in worker's colleges, the Radio and Television University, secondary technical schools or skill training schools; students are released from production for full-time or part-time study with pay. A few factories advocate a five-to-one system, i.e., five days for work and one day for study. Practice of skills at the post and demonstration of operations are organised as well. There is even greater variety of schooling and study time arrangements for peasants, such as full-time county-run technical schools, commune-run elementary technical schools combined with farms or with agro-technical stations. Curriculum is arranged on the principle of "more classes in slack season, fewer classes in busy season, and no classes in harvest season."
3. Training is provided for teachers to compile textbooks, intensify pedagogical research and improve teaching. In line with the principle "letting those who know teach", the production brigades engage teachers for the peasant schools.
4. In eliminating illiteracy the policy of "prevention, elimination and improvement" is used. Close attention is paid to make elementary education universal. Effective measures are taken to help those who have become literate to further their studies.
5. Every year the provincial government allocates 1 per cent of the total funds for education to support adult education and anti-illiteracy undertakings. Funds are also raised by all possible means in the light of "relying on the masses" and private schools being run by local people. In factories and mines, educational funds are drawn from the total sum of wages, dividends deducted from the gross profit and trade union membership dues. Funds for peasant education are raised pursuing a policy of "who ever wants to run school, finances it". Since the founding of the People's Republic of China, certain successes have been scored and some experiences accumulated.

EDUCATIONAL PATTERN IN JAPAN

Japan is a group of islands rich in mineral resources. It is one of the leading industrial powers of the world. The people of Japan are the followers of Buddhism. Due to the dearth of cultivable land, Japanese people do not take to agriculture. Japan has a rich cultural background. Japan is a growing country with all the potentialities of a peace-loving nation.

21.01 Background

Education is considered as a vital necessity in Japan. It was recognised that real progress cannot be achieved without education. Any scheme for the reconstruction of Japan should get the prior approval of the Ministry of Education. Democratic thinking is infused in the people through education. In ancient days there were only informal agencies of education. Family as the first institution of education impart religious, moral and cultural education.

The educational system underwent a change when Japan came in contact with China, which was a centre of higher studies and in about A.D. 200, a new educational system was evolved. Many Japanese people received higher education in China. When they returned to Japan, they established the formal education system. But the schools and the university started in the 6th century admitted only people from higher classes. It was during the 8th century that a new Japanese system education called *Tiahoccade* was established. It was in A.D. 1828 that a Buddhist monk opened a new school for public education. With the development of the political system the need for educating the Government servants arose. This necessitated the starting of more schools. Buddhist monks established *Tera-koya* schools attached to monasteries and temples for the children of lower classes of society in the age group of 6 to 15 which were taken up by the government later on.

In order to keep pace with other countries of Europe and America, representatives were sent to these countries to be educated there. Based on their recommendations, the new system of education was organised in 1872.

21.02 Reorganised System of Education

The educational set-up of the country was divided into 8 regions, with independent administrative machineries. Each region was under the charge of an administrator to look after the whole system of education from primary to the university level. The major focus was on inducing self-respect, sense of morality, strong character and feeling of brotherhood. The primary education was influenced by the French system whereas the university education was influenced by the American system.

21.03 Education in Japan before the Second World War

The foundation of modern education of Japan was laid during the 19th century, by imitating the pattern of the European countries. A Ministry of Education, with 5 departments and bureaus was set up to monitor the system of education, as was the case in UK and USA. The ministry was in charge of various commercial and educational institutions. The Ministry of Education has 5 departments such as accounts, documents, physical education, building and personnel which looks after art, culture, literature and science. The personnel department deals with the service conditions, appointments, pay scales, promotions etc. of the teachers.

There were eight bureaus in the Ministry of Education which dealt with the different levels of education whereas the departments dealt with different aspects. The following are the list of bureaus:

1. Bureau of Education
2. Bureau of General Education
3. Bureau of Technical Education
4. Bureau of Social Education
5. Bureau of Religious Education
6. Bureau of Textbooks
7. Bureau of Educational Research
8. Bureau of Thought Supervision

21.04 Types of Institutions

There were three types of schools and institutions in Japan from the point of view of financial control and administration:

1. Schools and institutions established by Mombusho administration.
2. Institutions controlled and maintained by prefecture and local bodies.
3. Institutions maintained by individuals.

Schools under Mombusho Administration

These were very few in number and were under control of the government which bore the entire financial burden but fees were charged from the students.

Institutions under Local Bodies

These were the largest in number, in both rural and urban areas. These are similar to the county schools of England. The 46 local bodies in Japan meet 20 to 50 per cent of expenditure of these schools.

Institution by Individuals

These were very small in number in Japan and got grant-in aid from the government and local bodies. Rich individuals provide funds for the education of the poor students. The Government of Japan realised the importance of education for its people and it was given top priority in the budget. Local bodies were responsible for the construction of school buildings and the provision of other equipment. The government and the local bodies collaborated in the appointment of teachers and other employees.

21.05 Pre-primary Education

Individuals and private organisations established kindergarten schools for children up to 5 years of age, with the aim of making Japanese people moral, patriotic, disciplined and courteous. As attendance was not compulsory enrolment was very poor.

21.06 Primary Education

Primary education was meant for the age group of 6 to 12 years of age and attendance at these institutions was compulsory.

In addition to History and Geography, Physical Education, Music

and Handicraft were also an integral part of the curriculum. History of the lives of great men occupied an important place in the curriculum in order to build up their character and morality.

21.07 Secondary Education

In Japan, secondary education consists of (a) Junior high school education (b) High school education and (c) Higher secondary education. History, Geography, Moral Education and Military Education were included for junior high school and high school education. Schools named *Kotogakko* offering higher secondary education were held in high esteem and ordinary students and girls often do not get admission as the entrance examination is very difficult. Most of these schools are residential ones. A student from this school will automatically be admitted in government schools, without any entrance test.

In these schools, the curriculum includes Science, Mathematics, Economics, Social Sciences, Philosophy, Chinese and Japanese Literature.

21.08 Higher Education

There were three kinds of universities at that time. They were universities opened and managed by the state, public universities and the local or private bodies. Universities opened and managed by the state were called Imperial Universities and these were held in high esteem as they had a high academic standard. Graduates from these universities were given preference in the employment and public esteem in life. Among these Tokyo and Kyoto were considered to be the best.

Public universities held the second place and they were maintained by prefecture and these were semi-state universities run by local bodies and private bodies were neither managed by the state nor by the prefecture. In all, there were 47 universities in Japan. The Ministry of Education was responsible for most of these and it exercised control and watch over the students through the Thought Control Bureau. All these universities had well-equipped libraries which contained only reference books. There was a rich programme of co-curricular activities as well.

21.09 Girls' Education

Though Japan had become modern by then, co-education was not offered. It lagged far behind as far as girls' education was concerned.

There was differential curriculum for girls, as they were expected only to discharge the duties of a housewife. Emphasis was laid on home-making, child welfare, interior decoration, music, dance and arranging festivities, feasts, etc. Girls did not go for higher education. Literature, Mathematics, Science etc. were not included in the curriculum for girls.

21.10 Youth Movement

Much importance was attached to education and organisation of youths. A network of youth organisations was spread in Japan before World War II. These youth institutions served as a substitute for adult or social education. The young men who missed the opportunity for formal education during their early years were imparted moral, physical and commercial education in these institutions. Thus the main object of this youth movement was to impart adult and social education up to the primary level initially and up to the secondary level since 1939. Attendance at these institutions was made compulsory. Later on, these institutions even offered Agriculture, Fisheries and Military education. These were part-time schools run and maintained in the building of monasteries, public schools, primary schools etc. The youth institutions arranged for the education of girls also, as the aim of this movement was to develop able-bodied citizens. But the whole situation changed after the Second World War.

21.11 Education in Japan after the Second World War

The conquerors of Japan changed the entire education set-up of the country and a new department called Civil Information and Education Department was formed, which was dominated by educational and military officials of USA.

21.12 Educational Reconstruction

Reconstruction was carried out right from the physical infrastructure such as buildings and administrations to the curriculum and content, material of education, as the buildings were actually demolished due to war. Education was liberated from the military influence and old books on History, Geography and Moral Education were replaced by new ones with democratic thinking. A Joint Committee of American and Japanese Educationists was constituted which issued orders to local bodies and prefectures to implement the new scheme of education. The New Constitution of Japan (1946) contained six Articles which were responsible for protecting and safeguarding individual rights,

guaranteeing equal rights and abolition of the caste, class and creed distinction granting the people of Japan freedom of thought for speech, profession, religion and education and making education compulsory, with the freedom to choose any type of education according to one's ability.

Based on the provisions of these articles, co-education was made compulsory and free and arrangements were made for adult education as old books were obsolete. The power of framing curriculum and prescribing textbooks was decentralised. For each region teachers also were newly recruited. Each district has an education council for controlling the finances and training the teachers, conducting the examinations, constructing the school buildings and distributing the certificates.

Due to inflation, teacher's salaries were increased, and the National Government undertook the responsibility of constructing new buildings for schools and providing new equipments. Local bodies were held responsible for administering and running these educational institutions. Thus the Ministry of Education was solely responsible for all educational programmes.

21.13 Administrative Structure

Local bodies are the smallest unit of the educational set-up which are in charge of pre-primary, primary and pre-secondary education. Prefectures are next in rank, which have the responsibility of financing as well as administering these three stages of education under the local bodies. Prefectures are responsible for junior secondary education and supervise local councils. As a link between the education ministry and the local bodies, prefectures submit a report on the administrative aspect to the education ministry. Prefectures also undertake the training of the teachers.

Education Ministry

The Ministry of Education consists of a Secretariat and five bureaus, which help and monitor the activities of the local bodies and the prefectures. There are 18 advisory councils attached to the ministry, which advise the ministry on matters relating to general education policy, physical education, health, hygiene, training of teachers etc. and maintaining of standards in education. The Ministry of Education gives grants-in-aid to prefectures and municipal boards. The National

Exchequer provides funds for colleges and universities. It also provides commercial and technical assistance to the education councils, schools and units.

21.14 Educational Structure

Since 1947, education in Japan is free and compulsory for all children up to the age of 13 years. In order to bring uniformity in the administration of universal education, the 9-year period of compulsory education has been divided into the following three stages:

- (a) Primary education of three years—from the age of 6 up to the age of 9 years.
- (b) Junior secondary education of 3 years—from 9 years to 12 years of age.
- (c) University secondary education from 12 years of age.

University and college education follow the completion of higher secondary education. Old secondary schools have been reorganised into two categories of lower secondary schools and two categories of higher secondary schools, which include higher schools, preparatory schools and special technical schools.

Later Reorganisation

At present the total period of education in Japan runs for 19 years, consisting of the following :

- (a) Kindergarten
- (b) Primary schools
- (c) Junior Secondary Schools
- (d) Higher Secondary Schools
- (e) Junior Colleges
- (f) Universities/Post Graduate Colleges.

Kindergarten or pre-primary education was re-organised by Civil Education and Information Department. Now the responsibility of improving and maintaining these schools lies with the local education councils. These schools are efficient and well-equipped as most of these schools are run by private agencies.

Elementary schools cater to the education of the children between 6 and 11 years of age. These schools are administered by the prefectures and the local educational councils. Teachers are considered to be friend,

philosopher and guide to the students and hence fraternal relations are fostered between the teachers and the students. Rich and varied physical education programmes are provided to improve the health of the students. There are physical education and sports committees as well with health attendants and sufficient sports equipment. Instruction in hygiene and physical education is a part of the syllabus. Students are provided with milk and other nutrition. Intellectual and moral development are also an integral part of the curriculum.

Curriculum

Students in schools are taught Japanese Language, Social Sciences, Arithmetic, Hygiene, Physical Education and Nature Study. Learning about floral decoration, celebration of tea and other festivals are optional. The Ministry of Education publishes attractive and up-to-date books which are offered free to the students.

21.15 Vocational Education

Vocational schools are of two types:

- (a) Lower secondary schools
- (b) Upper secondary schools.

These schools provide education in Fisheries, Home Making, Agriculture and other vocations and occupations and, teachers for these schools are specially trained. These vocational subjects are also offered at the higher education stage.

21.16 Adult Education

Adult education was used as an instrument for military propaganda before the Second World War. After the war, in fact after 1952, adult education was recognised in its real sense. Today there is a varied programme of adult education for those who missed the earlier opportunity or who want to get refreshed. Proper medical facilities and emoluments are offered to teachers.

21.17 Training of Teachers

Primary teachers have to undergo a two-year training programme and secondary teachers need four years training. Senior teachers are provided refresher courses and the standard of training is high. Four types of certificates are given to the teachers after training:

- (a) First class certificates,

- (b) Second class certificates,
- (c) Five-yearly temporary certificates, and
- (d) One-year certificates given under special conditions.

Lady teachers are given maternity leave and financial assistance during this period. Facilities exist for going abroad to USA and UK for higher studies for competent and efficient teachers. Conditions of teachers are very good and there is a proper arrangement for their promotion. Japan has two important teacher's organisations which strive to improve the conditions of teachers:

- (a) Japanese Literary Society, and
- (b) Japanese Teacher's Organisation.

Members of these organisations are represented in education councils and other bodies.

21.18 Private Agencies in Education

Private agencies play a vital role and contribute a lot to Japanese education. Religious agencies and religious communities have run a number of schools since 1949, which are under the control of the prefectures. Most of these schools are much better than the state controlled ones.

21.19 Drawbacks in Japanese Education

Though Japan is progressing very rapidly in the field of education, it also faces certain psychological and material problems that prevent further progress.

- (a) In spite of the government's efforts in repairing damaged buildings and in offering loans for building new ones, it is not possible to meet the growing needs of schools. Hence, as in India, these schools adopt shift systems in their schools.
- (b) People of Japan are facing a psychological crisis. They are on the one hand very anxious to preserve their old traditions and hence remain conservative while on the other hand they want to be quite modern due to the influence of the European countries. This crisis is slowly easing out.
- (c) Like India, Japan also faces the problem of language, as there is a variety of scripts. Chinese language is popular and its script is practised. Major Japanese languages, namely, Kanji, Kana, Kanamajiri, Romaji etc. have different scripts. Due to the variety

of scripts, Japan cannot have one language which may serve as a medium of instruction at all stages. English also has its influence. Though Romaji and Kanji languages are encouraged, the problem is yet to be solved.

However, the future of education in Japan can be bright, if these problems are successfully tackled.

EDUCATION IN FRANCE

22.01 Background

Education in France has a rich history. French education owes a lot to the religious and private bodies. The first school in France was established in 1684 by a religious institution. Religious bodies attended to both secondary and higher education. Several cathedral schools had been established all over the country and education was in fact an integral part of the church. New educational outlook was given by the public schools.

The demand for the centralisation of education in 1789 was the beginning of the state interference in the field of education. University-de-France was established in 1808 and the whole country was divided into 27 educational administrative units which were under the Academics presided over by a Rector.

Elementary schools were run by the local authorities. During 1907, 70 per cent of the expenditure was met from the state grant-in-aid. As a result, inspection system was also introduced. The Education Act of 1882 made the elementary education free and compulsory. The Education Act of 1904 strengthened the state control on education. There was equality of opportunity for all.

Due to the impact of the Second World War and the victory of the Nazis, the French educational system was more or less annihilated. A commission appointed by the government, recommended an overhauling of the educational set-up of France. With the liberation of France in 1944, the recommendations of the Algiers Commission on Education was implemented. Another Commission with Professor Paul Langevin recommended the following changes in the educational system:

1. There should be equality of opportunity for proper education.
2. There should be uniform education throughout the country.
3. Education should be universal (compulsory) for children up to the age of 14 years.
4. Great emphasis should be laid on the education of science technology based on the requirements of the country.
5. Students should be taught about the culture and civilisation of France.
6. Students should take the responsibility of training other students in public services.
7. Scholarships should be provided to the students securing professional, technical and teacher's training.
8. Education should be categorised based on the levels such as elementary secondary, higher and technical education.

Today, the France pattern of education is based on the lines laid down by the Commission of French Education.

22.02 Pre-primary Education

Education in France is decentralised at all levels. Pre-primary education is carried out by the following institutions:

- (a) Kindergartens
- (b) Children's class
- (c) Special Pre-primary Education

There are modern as well as traditional types of pre-primary education for the children below the compulsory age of 6 to 14 years. The following are the various institutions that impart pre-primary education:

Lycees and Colleges

These are the oldest institutions of pre-primary education. Salles D'asile are also the oldest institutions and take students between the ages of 2 and 5 years and prepare them for primary education through psychological methods and also inculcate in them good manners and behaviour. These are similar to creches and nurseries of other progressive countries.

Classes Enfantine

Started as extra classes for primary schools, these institutions occupy an important place in the development of pre-primary education in France. Children in the age-group of 3 to 8 years are admitted in these schools.

22.03 Kindergartens

In these schools boys and girls in the age group of 3 to 6 years are admitted. They are trained in art, craft, handicraft, language and observation of study, keeping in mind their physiological and psychological development. At the second stage, children are taught the three R's, with a view to bringing about the all round development of the children.

22.04 Administration of Pre-primary Education

Since mothers had to go in for work particularly after the Second World War, creches and nurseries were started to look after children and provide them with pre-primary education. The government does not undertake the responsibility for establishing these schools. It is the responsibility of the people only but the government gives grant-in-aid for their maintenance.

The system of teaching in these institutions is psychologically and scientifically planned. Children in the age group of 3 to 6 years are admitted and hence every attempt is made to look after their physical and mental development. Teaching is carried out on scientific lines. Education is provided with the help of games and plays. Montessori system and other modern systems of pre-primary education are also popular in France.

22.05 Primary Education

As a result of the Declaration of 1881, primary education is free and compulsory for the children in the age group of 6 to 14 years. Primary education is a cooperative venture of the government and the private agencies. There is a government primary school within the jurisdiction of every municipality. There are separate primary schools for boys and girls. When sufficient number of girls are not available, co-education schools are established. Government provides grant-in-aid for private schools for building and other purposes. Each school has a playground and other facilities stipulated by the government.

Primary education in France is divided into three stages:

- (a) Primary Education
- (b) Primary Secondary Education
- (c) Higher Primary Education

Under the Ministry of Education, there is a self-contained department of primary education. Each school works for 6 hours a day. Each student

should study for 30 hours per week and play for 2 1/2 hours. Attendance is compulsory. Guardians are legally responsible for the attendance of their wards.

In order to preserve the culture, maintain national unity and solidarity, French is introduced as the medium of instruction. Arithmetic, Handicraft and Home Science are included in the syllabus to bring about the mental development of the children. Physical education is compulsory for bringing about physical development. The syllabus is different for boys and girls. Boys are taught Mathematics, Science, Drawing, Music, History, Geography, Civics and Moral Science. Girls are taught in addition to the above, Home Science. In framing the syllabus, local needs occupy an important place. Only such textbooks which are fit for the standard are purchased. In addition, exercise books are also given. Government has no control over the selection of textbooks. It is prescribed by a committee consisting of the Inspector of primary schools and other teachers.

There are both general and competitive examinations. At the end of a course a general examination is held and a diploma is awarded. At the age of 12, every student has to appear at an examination and get a certificate of primary education. Oral, written and practical tests are conducted. Examinations are different for boys and girls.

There is an arrangement for superior primary education which is slightly higher than normal primary education. There is a two-fold arrangement such as superior primary school-proper and complementary course or schools. These schools offer a 3-year course and certificates declaring the students eligible for government services and teaching jobs, are awarded. Complementary schools offer a 2-year course, and award a certificate of primary education. Subjects such as Physical Education, Agricultural Education, Industrial Education, Handicraft etc. are based on the local needs. Schools are managed by a committee of management. The headmaster is appointed by the Ministry of Education. Teachers are appointed on the basis of their qualifications and a diploma in teaching. A good deal of stress is laid on the moral education of the students.

22.06 Secondary Education

There is a scientifically organised systematic uniform pattern of secondary education in France. The institutions of secondary education can be classified under the following heads:

- (a) *Lycees*: These were established in 1809 with the aim of preparing students for higher education. These schools offer seven year courses and great importance is laid on the teaching of classics and mathematics. As exorbitant fees are charged only rich people send their children to these schools. These are similar to the Public Schools of England and India.
- (b) *Modern colleges or 'college moderne'*: These were established in order to meet the shortage of educational facilities. These are under the control of municipalities and local bodies. Emphasis is laid on the teaching of modern sciences.
- (c) *Complementary classes*: These are established in rural areas where there are no lycees or colleges and they impart secondary education to those who pass their entrance examination at the age of eleven. Classes are held based on the local needs and requirements.
- (d) *Secondary schools for technical education*: These schools are called 'College Technique' and these provide technical education at the secondary level.

Separate schools (lycees and colleges) are established for the education of girls. Co-educational institutions are started only in places where there are insufficient number of girls. Syllabi in these institutions are more useful for women in their family life and household duties. In addition, they also study Home Science, Home Economics, Tailoring etc. along with other modern subjects.

Since 1937, orientation classes are held to identify the interests and aptitudes of students for secondary education. Emphasis is laid on child psychology, individual differences and interests of children. Government as well as the private agencies are responsible for the provision of secondary education. The head of the lycees is called 'Principal'. The committee of management is responsible for finance and the appointment of the staff. The responsibility for the teaching and internal discipline is that of the principal and other members of the staff. Classes are generally named in the reverse order. First class is not the lowest class in France.

Generally, French Language, Literature, Painting, Science, Mathematics, Physical Education etc. are taught. French is the medium of instruction at the secondary stage of education. *Baccalaureat* is the highest degree of the secondary education. Education is imparted on modern and scientific lines and attempt is made to develop the faculties

of reasoning and analysis of the students through the teaching of Latin, Greek, Philosophy etc.

22.07 Higher Education

Higher education in France has a wider perspective as it includes both the university education of humanities, social sciences and natural sciences and higher professional education. Mere acquisition of a degree or diploma or a certificate is not the aim of higher education. Hence, students have to combine self-study together with the study of the prescribed syllabus. Students of higher education can be classified into three categories such as, common students who follow the prescribed syllabus and get a degree or acquire professional efficiency, those who get a thorough knowledge of the subject matter to quench their intellectual thirst for knowledge, and the casual students who attend lectures to increase their knowledge but do not aim at a degree.

22.08 Administration

The National Education Ministry has control over higher education, so that high standards can be maintained. Under the directions of the National Ministry of Education, the state government is responsible for higher professional education. Universities have separate facilities for arts, science, commerce etc. Academies which are institutes of higher education, provide facilities for study, reading, professional training and research in the field of education. Degrees and diplomas are awarded based on the personal output or efficiency of the students. *Baccalaureat* is the first degree and doctorate is the highest degree. Higher education is not confined to the education of science and arts alone but includes higher vocational and technical education. Special centres of higher vocational training and education called *Grander Ecoles* are established to meet the demand for higher trained persons in industries.

22.09 Agricultural and Industrial Education

In order to produce scientific and technological development industrial and agricultural education are stressed upon in France since 1875. As a result of Langevin Commission's recommendations, arrangements for industrial and technical education have been made. Ministries of Commerce, Industry, Agriculture, Labour, Health and Defence, co-operate with the Ministry of National Education in providing industrial education. Both the government and private bodies together run schools for industrial education. There are four categories of schools for industrial training and education.

- (a) National Industrial Schools,
- (b) Departmental Schools,
- (c) Schools of Communes and,
- (d) Commercial Schools.

The National Ministry of Education has established four types of industrial schools such as schools for high officers, for administrative officers, for art and commerce and for vocational guidance. Other private agencies run practical schools of commerce and industry, home craft schools, vocational schools and vocational classes.

Practical training with general education is imparted by apprenticeship centres. Thus specialised education is integrated with general education. Several institutes of varying levels have been established for agricultural education in the upkeep of livestock, Veterinary Science, Agronomy, Agricultural Engineering etc.

22.10 Teacher's Education

There are different categories of teachers for different levels such as kindergarten and nursery schools, primary schools, higher primary schools and normal schools, and teachers of colleges, lycees and other higher schools. Those who teach in kindergartens, nurseries and primary classes are called teachers and those who teach in other schools and colleges are called professors. Different categories of teachers are trained in different institutions. The national government bears the financial responsibility of these training centres. Generally, pupil teachers have to study 30 subjects, including teaching of Science, Educational Psychology, Education, French Language and Literature etc. Teachers are also given practical training in teaching and in managing the classes. Admission is through an entrance test. There are superior normal schools for the training of teachers for primary normal schools and higher primary schools. There is a separate arrangement for teachers of secondary schools. There are two methods of recruiting teachers to the secondary schools. Those with *Baccalaureat Degree* and university education are trained for secondary schools.

Those who had professional training may go for teaching secondary institutions. Training is provided for 4 years. There are permanent teachers, long term substitute teachers and short term substitute teachers. Hours of work are different for different categories of teachers. Hours of work are less for teachers of higher education. Disciplinary action is taken on the teachers who commit a breach of discipline.

A COMPARATIVE STUDY

23.01 Administration

Administration and control of education of any country depends upon the system of government. In a totalitarian, socialist and communist system of government, education is under the direct control of the state. In democratic countries private agencies are free to establish institutions, find resources and meet the requirements.

America and India are democratic countries. In addition to the government, private agencies also run institutions. Churches and other religious institutions are pioneers in this regard. But in Communist Russia, all the institutions are controlled by the government. In spite of England being a democratic country, there is a good deal of state control over education.

Unlike Soviet Union, pre-primary education is in a primitive stage in India. Whereas the state is responsible for infant education in USSR, everyone is responsible in India. Most of the institutions are run by private individuals and agencies. Of late, there is a mushrooming growth of such institutions primarily started with a profit motive. In England, infant education is the responsibility of the local bodies or countries. In America, private agencies are solely responsible for nursery education.

In India, secondary education is the responsibility of the state. There are private agencies also. In Russia, the national government lays down policies and looks after the administration of the secondary education. The state as well as the country is in charge of secondary education in the UK. In the USA both the government and the private agencies look after secondary education. In China, secondary education is centralised.

In India, universities are autonomous bodies and higher education is more or less independent. Universities are established through the enactment of legislature and the approval of the UGC and in USSR university education is also the responsibility of the State. State as well as private universities offer higher education in America. Higher education in India and England are more or less similar. Universities are established through the charter of the parliament but they are autonomous as far as internal working is concerned. Higher education in China is totally state controlled.

Ultimately the political set-up and the social structure of a country determine the administrative control of the system of education.

23.02 Primary Education

Primary education is universal and compulsory in India. The Constitution of India proclaims compulsory universal education up to 11 years. Due to lack of adequate funds, resources and motivation on the part of parents, universal and compulsory primary education have not been given a practical shape. USSR has been successful in implementing compulsory primary education due to the availability of resources and the system of Government and its objective of a classless society. Primary education in India and England are similar, as the aim of both the countries is the all-round development of the personality of the child. There is also compulsory primary education in England, like India. But, England differs in its traditions and availability of resources. In the USA also, primary education has been free and compulsory for the last 4 to 5 decades and much more organised. America offers six years primary/elementary education unlike India which has 4-5 years only. Institutions and schools of primary education in USA are well equipped and organised unlike India. Like India, education is child-centred in the USA and the syllabi are also similar. Most of the primary teachers in the USA are women. Due to geographical conditions, there is more of dissimilarity than similarity between the primary education of Japan and that of India.

23.03 Secondary Education

Secondary education ends at class X both in the Soviet Union and in India. In Russia, secondary education is centralised and is administered by the state government. Private agencies also receive grants-in-aid from the government. Teaching of communist ideology forms an integral part of secondary education.

Both England and India are wedded to the ideals of democracy and hence the education system is more or less similar with the aim of bringing about intellectual, physical and emotional development of the students. Secondary education is divided into two levels, secondary and higher secondary. Both England and India have government as well as private schools. But India does not have public schools and grammar schools as in England. England lays emphasis on practical education, whereas in India, it is examination oriented.

23.04 Higher Education

India's tradition of higher education is borrowed from England, as a result of our colonial rule. Some changes were made as a result of the efforts of people at large, based on the requirements over the last forty years. Intermediate courses were replaced by the pre-university and it is then changed to the uniform pattern of 10+2+3. But in England, every student goes for university education after matriculation. Regarding the degrees, India follows in total the system of England, right from B.A. to Ph.D. Both in England and India, there are residential-cum-teaching universities, affiliating universities and specialised universities and institutes. Higher education in England is financed by endowments and other sources whereas in India, it is mostly financed by central and state governments. In India, UGC provides grants-in-aid to the universities and the institutes of higher education and the universities are autonomous and free from the influence of the government. The main aim of higher education in England is expansion of knowledge and building up of the society, keeping in mind the aptitude of the students.

In USA, higher education is a field of specialisation and students are free to choose the subjects of their interest and liking. There is flexibility and variety in subjects and degrees are awarded. A lot of emphasis is laid on practical training and field exposure. Unlike India, private individuals or agencies and churches run institutions of higher education in USA which have their own syllabi and award their own degrees and diploma. In addition to lectures and tutorials, practical training, discussions, debates, seminars and symposia form the methods of teaching in USA. Students have opportunities of earning and meeting the expenses of higher education in USA through scholarships, stipends, part-time jobs, research assistance and teaching. American education has semesters and quarters and a student can leave and join the class as and when he/she is able to. American universities are established with less difficulty and more freedom.

Academies and universities offer higher education in Soviet Union. Emphasis is laid on higher education in science, humanities, industrial and technical education. Unlike in India, there is a dearth of highly educated and equipped persons in Russia. Higher education is less expensive in USSR and all students receive scholarships and every institution has a right to award degrees. In both countries, the Ministry of Education has control over higher education, and unlike India, one has to prove one's worth and aptitude for it. There is no autonomy in Russia and all institutions have to follow the ideals and objectives of the Communist Party.

In Japan, higher education is very much influenced by the American pattern. There are more differences than similarities in the higher education of Japan and India.

23.05 Technical or Vocational Education

The Soviet Union is well advanced in the area of industrial or technological education. Primary, secondary and further education in the field of technology and industry are imparted by a network of technical and technological schools. There are several academies and institutes of higher agricultural, industrial and technical education in Soviet Union. There are several national laboratories, national institutes, colleges of medicine and agricultural colleges in India. Since independence, India has been focussing on the field of science, technology and industry but due to its increasing population, India is still far behind the other developed countries, in the field of science, technology and industry.

America is a very advanced country in the field of agriculture, technology and industry and along with technical and scientific education, education of liberal arts is also imparted. India has borrowed a lot from the USA in the field of science and technology and many institutes have been established in collaboration with USA. In addition to the support received from USA, Japan had to depend upon its technical education and it is very much advanced now in scientific and technical education.

Teacher Education

Both the government and the private agencies impart teacher education and award degrees. There are different modes of training imparted for the teachers of different stages of education, such as primary, secondary

and high school. India is very much influenced in this aspect by UK. In UK, teacher's education is the responsibility of the Local Education Authority. Unlike India, where the government and state take up the responsibility, in UK there is no division between teachers of different levels and the training is uniform. For the teachers of nurseries and kindergartens, special training is provided. In India, teacher's education is awarded for one year for graduates and a degree is awarded and one more year for the post-graduate degree in education.

In the USA, government, private agencies, voluntary organisations and universities offer teacher's education. There are faculties of education and local bodies and, municipalities established training colleges and institutes as in UK. Women teachers are specially trained for nurseries and kindergartens. There is separate training for primary and secondary school teachers.

There is no similarity between USSR and India regarding imparting of education to teachers. Russia is rich in nurseries and kindergartens which appoint only specially trained teachers. There is an elaborate arrangement for training teachers for different stages of education. Teachers for secondary education are trained by the pedagogical institutes. Great emphasis is laid on teaching Marxism and the Russian language and literature.

Thus the system of education in India is similar to a great extent to the systems of education in the democratic countries and has no similarity at all with the systems in communist countries where the system is totally centralised.

AUTONOMY IN EDUCATION

24.01 University Autonomy

The university is regarded as an open system engaged in higher education interacting with its external environment consisting of the UGC, other universities, research organisations and the state. While interacting with the state and the society, the university seeks to preserve its autonomy, to make its internal decisions and to regulate its transactions with its environment. The major functions of any university is teaching research and extension. It has teaching-cum-research departments and affiliated colleges to do these jobs effectively. It has support sub-systems like laboratory, library and computers. The university requires autonomy for making the major decisions such as selection of teachers for appointment and students for admission, to decide its teaching and research programmes, their standards, allocation of funds to the various programmes and grant affiliation to colleges. In short, it requires institutional independence to make its decisions. Also, the individual teacher in the university needs 'academic freedom', to teach and publish what he/she considers the best subjects to the laws of the land, and the needs of the nation.

24.02 Need for Autonomy

Academic decision-making needs professional competence and expert judgement which the university possesses. Independence and freedom improve the spirit of the university, the sense of responsibility of the teachers, students, and the university management. Also work is likely to be more effective if it is outside politics and remains unhindered by the bureaucracy of the government. It has been found from experience, that reasonable independence enables the university to achieve high academic quality. Accountability and autonomy are two sides of the same coin. Though the university is autonomous, it is also accountable

to the state and the public. All decisions must be made objectively and thus project a credible image to the society. Resources must be used effectively and the performance must have a high level of quality.

University autonomy is always restricted by the charter of the organisation. "Autonomy in the sense of total absence of support or control is generally neither sought by higher education nor can it be given by public authority. The society and the state have a direct stake and interest in the university's decision making. The society demands direct service from the university in solving its problems. The state expects the university to become an agent of social change and social justice through its decisions regarding recruitment, admissions, affiliation, teaching and research programmes."

University has to be largely regional and local in the composition of its students body, as it has to concede to the demand of the state for reservation for the weaker sections and rules of domicile for admission. The same rule of reservation applies to the recruitment of faculty also. The posts have to be advertised and followed by an interview by a selection committee. The university claims autonomy for deciding to grant or refuse affiliation to a college in its territory. In this also, the state has to express its interest, for ultimately sooner or later, an affiliated college impinges on the state's finances. Also, the state seeks the development of colleges in the educationally backward districts. The state provides 75 per cent of the current expenditure of the university and all its capital expenditure. Though there is substantial freedom for allocation of funds given by the state to various programmes, the state may ask the university to send its budget for approval and ask the university not to launch new programmes.

There is complete freedom regarding the determination of the courses to be offered, their structure, content, methods of teaching, evaluation and the areas of research. In case of unemployment, the state may ask the university to adapt its course of study to the human-power requirements of society and the nation. Regarding research the state may ask the university to undertake applied research to enable it to solve its immediate problems and to orient scientific research to rural development. Thus the university has to give due weight to the state's socio-economic policies in its decision making. Within the framework of such constraints universities enjoys substantial freedom. This freedom is lost when the state imposes more and more constraints affecting the efficient functioning of the university. The university is

expected to preserve an atmosphere of intellectual endeavour and high thinking and simple living.

There has been some criticism about the exercise of authority by the state over the university. One refers to the appointment of the Vice Chancellor by the state. A person so appointed may not be able to act independently of the pressures of the state. Another refers to the financial aid of the state, the grants given may not be adequate to meet the university's deficit on current expenditure. Sometimes the state can seek to curb a freedom of the universities. Another criticism is regarding the informal interference by state officials and politicians in the universities' decision making. Appleby remarks: "In a democratic government, the government can and should always be able to intervene in any matter really important to the government. Advocacy of autonomy simply highlights the needs to educate the responsible top organs of government in the ordinances, of self-denial which could restrict their intervention to really important concerns." In Bereday's words, "In the universities, which are explicitly the centres of free thought, the schools of critical thinking and the carriers of enlightenment, problem of academic courage more than of freedom must be central."

"External authorities are exercising more and more authority over education and, institutional independence has been declining. The greater shift of power in recent years has taken place, not inside the campus, but in the transfer of authority from the campus to the outside agencies," observes the report of the Carnegie Commission (1973). "We should like to refer to the question of autonomous colleges. Where there is an outstanding college within a large university, which has shown the capacity to improve itself markedly, consideration should be given to granting it an autonomous status. This would involve the power to frame its own rules of admissions, to prescribe its courses of study, to conduct examinations and so on. This privilege has to be earned and deserved and it should be open to the university to revoke the autonomous status, if the standard deteriorates. We recommend provision for the recognition of such autonomous colleges be made in the constitution of the universities. It should be possible in our opinion, by the end of the fourth five year plan, to bring at least fifty of the best colleges under this category."

The report of the Education Commission (1964-66): "The programme of autonomous colleges should be implemented vigorously

and an attempt made to set up a fairly large number of autonomous colleges in all parts of the country. By the end of the Fifth Five Year Plan, at least five per cent of the colleges should be made autonomous."

24.03 Criteria for the Provision of Autonomy to Colleges

Autonomous colleges are needed and everyone is in favour of them. The criteria for developing autonomous colleges are essentially qualitative. The criteria for selecting autonomous colleges should be the relevance of the learning offered to the economic potential and moral demands of societies and fitness of the institutions to discharge this obligation. The following are the major criteria for autonomy:

- a. A reputation for academic and administrative integrity of the college management.
- b. High academic quality of faculty members.
- c. Condition of laboratories, library, hostels and extra-curricular facilities offered by the college.
- d. Willingness and capacity to experiment in education as indicated by the past record and present work.
- e. Ability to think, to experiment and innovate.
- f. Smooth and harmonious relationship among the administration, faculty and student body.
- g. Availability of sufficient physical facilities and a consistent record of academic excellence, committed and well equipped teachers who are willing to take on the new responsibilities attendant on autonomy.

24.04 Utilisation of Autonomy

Colleges should use their autonomy in selecting staff and students, constructions of relevant curricula, exploiting the latest technology of teaching and evaluation of achievements and performance. Selection of students should be objective and based on the interest, aptitude and merit of the students. Courses should not be stereotyped and traditional but based on the employment prospects. An aptitude test can be given instead of depending on marks alone. The parent university would still exercise a supervising role over the autonomous college to see that things go on smoothly and that standards are maintained. The faculty with the necessary qualification and qualities of those who can be helped to acquire the qualities should be selected.

The autonomous colleges should construct its curricula based on the principles of curriculum construction and the local problems. The type of curriculum creation will involve the development of multiple electives within the chosen area of specialisation. Explosion of knowledge makes today's knowledge obsolete tomorrow, hence the curriculum must have the inbuilt capacity for change. Existing curriculum should be periodically reviewed and renewed and if need be, some irrelevant electives must be removed and new ones introduced, leading to multifaceted self-renewing curriculum.

All technologies of learning, such as self-instruction, group discussion use of library, radio and TV must be used. The outdated, useless and harmful system of examination should be replaced by a system of continuous internal evaluation in the autonomous colleges. For the present system of examination does not test a student's inherent qualities or attainments but only his/her capacity to assimilate outdated information and memory. Autonomous colleges can switch over to the semester or trimester system.

Autonomous colleges will attract gifted students. Utmost freedom in experimenting with curricula, introduction of projects, work experiences, and vocational trainings should be encouraged. Constant exchange of teachers from the world of education to the world of work and vice versa and the use of many para-educational personnel should be encouraged. To ensure the maintenance and improvement of standards, a committee appointed by UGC should annually visit their autonomous colleges to examine, how far their performance justifies the continuance of their autonomous status.

STUDENT UNREST IN INDIA

25.01 Introduction

The University Grants Commission (1962) defined student indiscipline as mass moral turpitude and collective defiance of authority and the use of techniques in seeking to redress real or imagined grievances, which are not appropriate for students to use. Indiscipline assumes many forms, as observed by Professor Asthana, "Student riots, man-handling of teachers and principals, damage of college buildings, disruption of the normal life of society by squatting across the road and the railway track to register their protest. Agitations and strikes are group activities, occasioned by some immediate issues but nourished by the general dissatisfactions. They are engineered by the student union over issues connected with problems of administration, admission, examination and residence in halls." The student unrest continues to be intensified by dissatisfaction resulting from the irrelevance of education to occupation, the failure of education in socialisation, changes in norms, values, sanctions, attitudes, largely as a reaction against old notions regarding discipline. Remedial measures are an urgent need of the hour, in order to stem the tide of anachronism among the students. Basically the problem has arisen out of a schism between elders and youth, which was unheard of in the *Guru-Shishya* traditions of this country.

The Education Commission of 1964-66 itself states, "With the attainment of independence the situation has changed greatly. The one rallying point which had kept many diverse elements together ceased to exist and as the schools were unable to inculcate and strengthen the national consciousness, the sentiment itself seems to be wearing thin, particularly in the new generation. The leaders of the youth must have the will and self-confidence and faith in the young generation who are the future of the nation. This problem of unrest is related not to

individual student but to the set-up in which they are at present placed without proper organisation or guidance. The explosion of knowledge and the revolution of rising expectations have added another dimension to the existing problems of irrelevant curriculum, crowded classrooms, lack of guidance etc."

The university education must be made relevant and purposeful and the work schedule should keep a student fully and usefully occupied, minimum physical amenities and healthy outlets for surplus energies of the adolescent and early adulthood must be provided. There is general agreement that the immediate cause for student's unrest in our country resides in the educational system itself but a deeper probe into the nature of student unrest and the manner in which it has manifested itself indicates economic, social, political and environmental causes. The phenomenon of the student activism is directed in some degree to the affairs of universities and colleges but largely and more intensively to the affairs of the society and the nation. Today the students' wrath seems to be directed against society, which has failed to fulfil the dreams which freedom promised. Instead, the students find themselves faced with uncertainties and frustrations in life and are trying desperately to draw the attention of society to their plight and legitimate demands. The recommendations of the Education Commission on social service and adult education include, among other things, direct involvement of students in community development projects in order to help the social, economic and cultural growth of the communities. The "Universities and colleges should organise social service camps and adopt villages for intensive programmes for development, eradication of illiteracy, improvement of agriculture, local industries and working co-operatives." There is no end to the ways in which a university can make its extension services effective. This programme will help to bridge the gap between the educated and uneducated classes, relate education to the life of the nation and harness the energies of the students to programmes of national development.

A university or a college is expected to have four functions, namely, the preservation and extension of knowledge, the training of social workers and finally the social mission, i.e., a university is expected to teach and to research extension. Our colleges and universities are well aware of the first two aspects but there is unfortunately little concern for the third aspect, i.e., extension. The introduction of National Service Scheme in all colleges and universities

serves the purpose of involving the student population in social work. These well-intended efforts to harness the energies and talents of students to constructive purpose are indeed commendable. The building of roads and schools and conducting literacy drives can be described as symbolic acts of participation in the national development.

25.02 Why the Indiscipline

The present day youth have no seriousness of purpose or love of learning. They are the victims of "changing social values". They have lost faith in the old and found no faith in the new. Mute submission is the best he can offer and even that not at all times. Drastic actions such as strikes, burning of buses, stone throwing, screaming demonstrations, banner-carrying processions, picketing, hunger strikes, etc. are undertaken on behalf of a variety of causes, many of which seem disproportionately slight in comparison with the passion and fashion of their expousal.

25.03 Discipline in Schools

No amount of improvement and reconstruction in education will bear much fruit, if the school itself is undermined by indiscipline. Nothing could be more striking and more effective. Rousseau, the great lover of children, pleaded, "O man, be human. Love the child, encourage its sports, its pleasures, its amiable instincts. He discarded the old conception that aimed at remaking the child by forcing upon him the traditional way of thinking." Thus he swung the pendulum to the other extreme by advocating his new theory of discipline. This was followed by Pestolozze, Froebel and Montessori. Montessori believed that true discipline does not consist in breaking the will of the child, but rather in helping him in creating and developing this will. According to her, it is the willing obedience of a child, that is, self-discipline and true discipline comes through work and activity. John Dewey opines that discipline should be social as far as possible. The natural impulses of the child should be directed through cooperative activities in school. The child's activities are disciplined in so far as they are carried on in co-operation with others and are directed towards the realisation of certain purposes.

25.04 New Types of Discipline

This discipline has faith in the inner capacities or potentialities of the child to the requisite subjection to authority of its own accord. The use

of the rod is totally prohibited. An atmosphere of love, freedom and respect for the individuality of the child, provision for cooperative activities, introduction of co-curriculum activities are the best means for cultivating the new type of discipline. It is child-centred and the teacher in only a guide, philosopher and friend to offer valuable direction if needed. Discipline is only a means to achieve an all round development of this child's personality. Although it is the inner sanctions which ultimately affect the moral or social behaviour of the child, yet many external influences which are brought to bear on the child have their own contributions. The fountainhead of all good discipline is the authority of the teacher. The teacher must have sympathy, keen insight, patience and aptitude for a careful study of the child's mind. The teacher must love and administer praise and blame with justice and impartiality. Also the teacher's appearance, his mode of dress and address may help in this task.

Teaching is a bipolar process and the teacher should employ methods that motivate and lead to active participation. There should be full and never ending cooperation between the teacher and the taught. A variety of teaching methods eliminates the possibility of indiscipline in the classroom. The teacher should come thoroughly prepared to the class, speak in a forceful voice, should not lose his temper, avoid sweeping statements, and keep the parents well informed of their wards' behaviour in school.

25.05 Co-curricular Activities

Sports and other activities, instil among the students a sense of self-control and self-reliance, which are the cornerstones of good discipline, that spring from within. In this connection one should take note of the fact that the restlessness of the children is largely due to the fact that they do not get enough outlets for the expressions of their youthful urges. If these youthful urges and energies are channelised and fields are found for utilising their enthusiasm and harnessing their extra energy, there is no need to impose external discipline. The good they can do is unlimited if only this energy is properly utilised. That is why these are regarded as the most effective adjuncts of discipline in schools.

25.06 Self-government in Schools

Possibilities of a certain amount of self-government among the people in the schools need to be considered. A growing sense of the need for order and security in the common life will bring with it an interest in

seeing that these conditions are established on an acceptable basis. For this, the students may be properly associated with the work of maintaining discipline. Such a self-imposed discipline is essential. They can be entrusted with the function of looking after the health, sports and other such activities. Their sharing of authority and responsibility with the teacher provides that direct and first hand training in citizenship which stands for the be-all and end-all of good education.

25.07 Indiscipline—Causes and Cure

Anything that is likely to be harmful to one's fellow beings, that is calculated to interfere with the smooth working of any institution with which one is connected, whether it is a school, a club, an educational institution, a factory in which one works, a political party or even the government of the country, that denies to another that liberty of action which one claims for oneself and above all, that which is inconsistent with proper courtesy and consideration for members of the other sex is a sign of indiscipline. If this evil is not attended to, it will assume proportions which may not be easy to handle, much less to tackle. According to Professor Humayun Kabir, "Failure to take effective steps at this stage can so aggravate a problem, that it may shake the very foundations of natural life." Indiscipline in educational institutions is not an isolated problem, and its roots lie, not only in the system of education but also in the state of society as a whole. Causes of indiscipline in the schools are as follows:

Defective Educational System

The present system of education inherited from the British system has outlived its utility and its significance. In spite of superficial changes, it remains a means for producing ill-equipped, half-educated, frustrated and unemployable youths. The present system of education neither develops the character of students, nor enables them to earn their living independently. Many of them are educated, unemployed or under-employed and hence are without initiative, drive or self-confidence. The present system is irrelevant and has little relation to the need of the times and Indian conditions. There is a drastic need for more job-oriented, industrial, vocational and technical education.

Overcrowded Classrooms

Due to the explosion of population, increased demand for education, limited infrastructure of the formal system and the absence of technical and vocational institutions, everyone flocks to the ordinary schools, colleges and universities. This overcrowding leads to the slackening of control by the teachers.

Lack of Individual Attention

The overcrowding in classrooms has decreased the teacher-pupil interaction. Being left to themselves, students easily fall a prey to evil counsel. Much responsibility for this indiscipline rests with teachers who do not give adequate attention to the students due to the teacher-student ratio. Lack of parental interest in their wards may also be responsible for this phenomenon.

Quality of Teachers

"Destiny of a nation is being shaped in our classrooms", says the report of the Kothari Commission. The students of today become teachers of tomorrow. Most of the teachers lack the required intellectual and moral equipment, high standard of scholarship, devotion to duty, appreciation of spiritual values, low enthusiasm for teaching and the taught, commitment to their work, etc. Previously students were deprived of the services of the cream of men and women, due to the poor salary offered. Now that the UGC scales have been implemented, better talents will be drawn by the teaching profession.

Physical Conditions

In some cases the physical atmosphere of school, such as lack of adequate accommodation, lighting, ventilation, drinking water, sanitary facilities and playgrounds have a bearing on the question of discipline.

Lack of Moral and Spiritual Values

Another important cause for student indiscipline in schools and colleges is the lack of moral education among the youth. Ours is still the legacy of the British system of education, which emphasises only on the literary aspects of education at the expense of the moral, aesthetic, and spiritual aspects. This has resulted in the internal unrest and frustration among students. As Dr. Radhakrishnan aptly remarked, "Universities should never aim at starving the aesthetic sense and the soul." Cultivation of values only will carry the youth towards the goals of

"truth, beauty and goodness". Previously religious institutions provided children with a philosophy of life and a code of behaviour, such as respecting parents and elders, being humble and forgiving, being content with what is given, etc. Now children are denied education in the frames of reference once provided by religion and, what they actually find around them is a mass of contradictions and controversies. As a result, a child becomes insecure. It is the responsibility of the parents and the teachers to guide the moral development from the child's earliest years. Religion plays an important role in disciplining the behaviour of an individual in a democratic society and helps in moulding the character of people in the right direction.

Political Influences

Education should always be free of political shackles. But as a result of the reduction in the voting age, (18 years), it is not possible to free education from the influence of politics and political leaders. Students should not be used for the purposes of political propaganda or election campaigns.

Extra Energy during Adolescence

The youth are passing through a critical period during their adolescence. They grow physically overnight and face stress. They need a lot of guidance to pass through this period. They have no role clarity due to the expectations of parents, teachers and society, and as a result face an identity crisis. The extra energy produced should be channelised into constructive activities such as N.C.C, N.S.S., Scouts, Guides, athletics, sports and games and other cultural activities. All they need is sublimation of mental energy and not suppression, which may distort them personally leading to unrest. All their queries regarding sex should be answered, failing which they fall an easy prey to evil habits due to the influence of peer groups.

25.08 Conclusion

Research by sociologists reveal that the influence of the family was the key factor in moulding the discipline of the children. Cohesiveness in the family, consistent discipline, affection from the parents seem to insulate an individual from "criminal influence". The authors even went further in their conclusions by stating: "In all the influences which play a part in the genesis of criminals, the mother's personality appeared to be the most fundamental." Next comes the peer group influence which

contributes a lot for the indiscipline because the group provides the youth with security, rewards him with a sense of belonging and recognition, which he may lack within his family. This would seem to be particularly true of young people, who come from unhappy or broken homes, the peer group can provide some of the support that the family fails to afford. When the group finds itself in conflict with authority, it is easy for them to feel that all representatives of authority are treating them unfairly and so they lean even more heavily on each other. As one sociologist concluded, "From the point of view of a group member, the group is the world." The problem of indiscipline among students is only a part of the much bigger problem of educational reconstruction.

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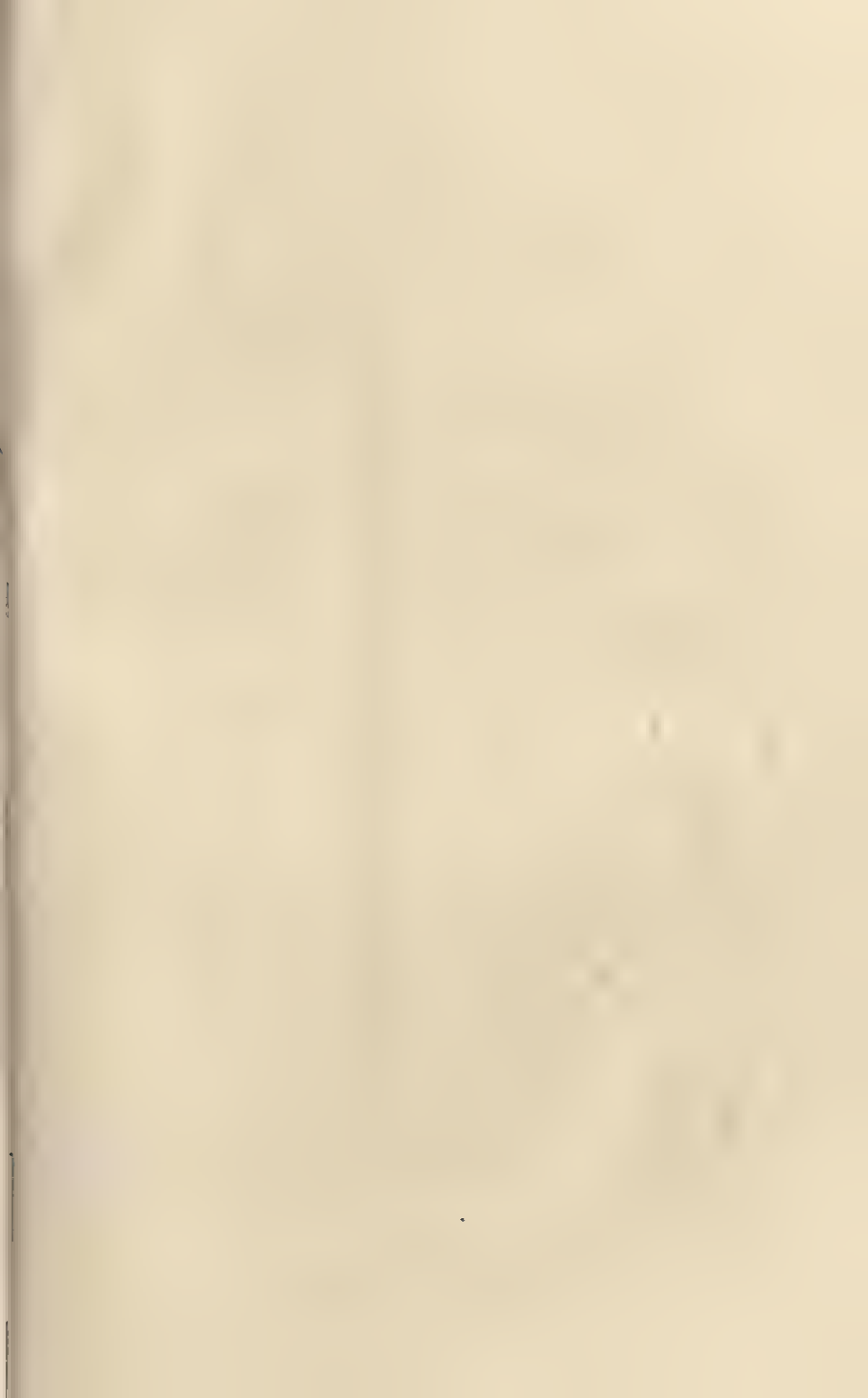
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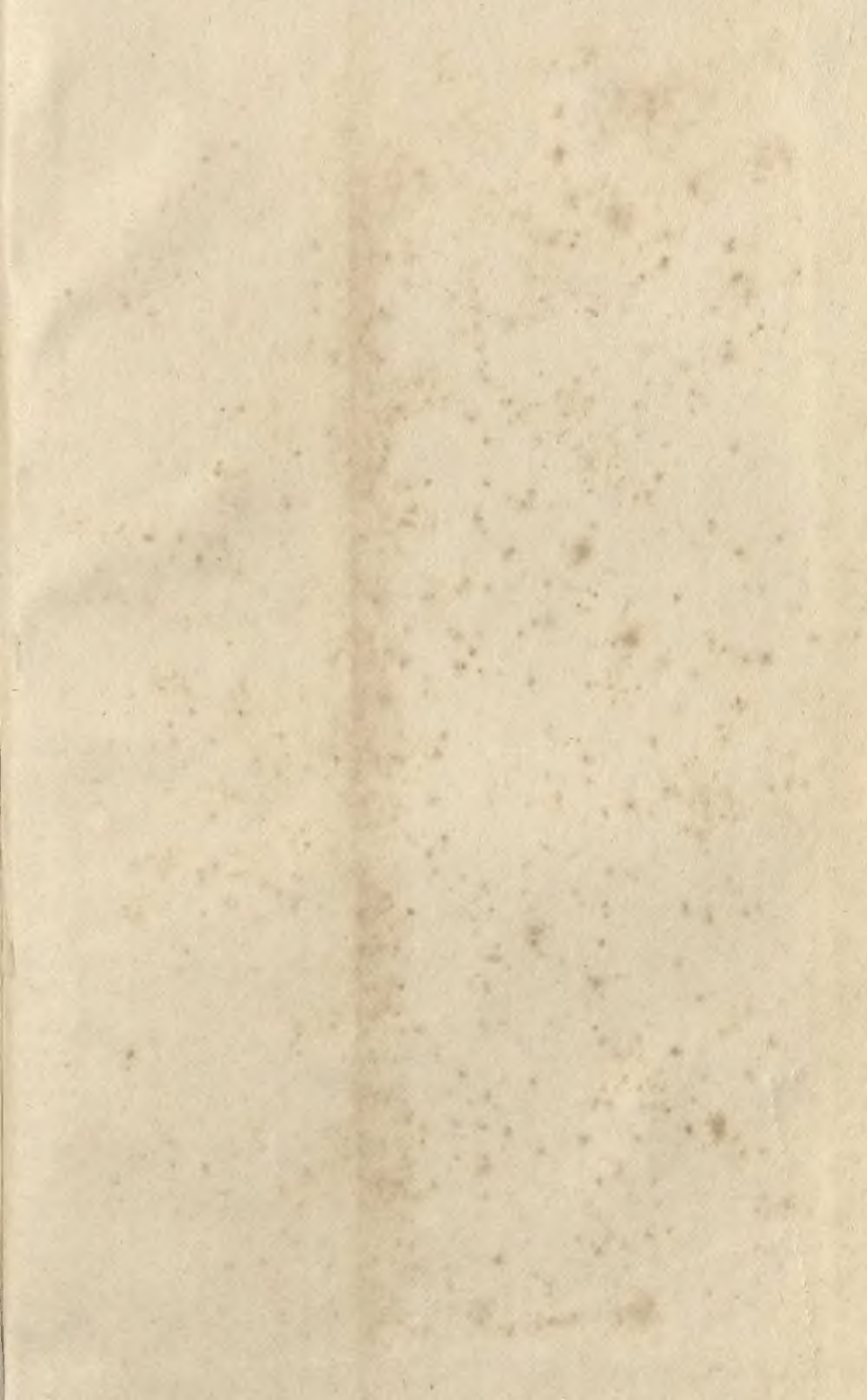
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